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FIELD ARTILLERY SUPPORT FOR III CORPS ATTACK 18 - 26
DECEMBER 1944 by Gregory V. Morton, USA, 152 pages.

This study is an historical analysis of the employment of the field artillery during the III Corps attack to relieve the American soldiers surrounded at BASTOGNE. The doctrine and training of the field artillery units is examined. This examination is used to evaluate the employment techniques used by III Corps artillery. The development and maturation process of the III Corps artillery is traced from its first combat experience at Metz through its employment during the initial stages of the Battle of the Bulge. This study discusses the pre-war training, doctrine of the period, and development and use of the Field Artillery Group. Actions taken by III Corps prior to and during the attack are analyzed to review their employment techniques and compliance with the doctrine of the period.

Among the lessons demonstrated by this study are: the adherence to a standard set of employment procedures and compliance with doctrine was effective in this battle; field artillery units should be employed as battalion size units; current day field artillerymen should practice all the standard tactical missions; local procedures that violate doctrine should be avoided; field artillery units should train with the maneuver units they will support.

The study concludes that the standardized set of employment procedures used by III Corps, and a thorough understanding of doctrine, created the flexibility necessary for the employment of the field artillery during this battle.

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FIELD ARTILLERY SUPPORT FOR III CORPS ATTACK

18 - 26 DECEMBER 1944

A thesis presented to the Faculty of the U. S. Army
Command and General Staff College in partial
fulfillment of the requirements for the
degree

MASTER OF MILITARY ART AND SCIENCE

By

GREGORY V. MORTON
B.A., The Defiance College, 1968

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MASTER OF MILITARY ART AND SCIENCE

THESIS APPROVAL PAGE

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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

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This study is an historical analysis of the employment of the field artillery during the III Corps attack to relieve the American soldiers surrounded at BASTOGNE. The doctrine and training of the field artillery units is examined. This examination is used to evaluate the employment techniques used by III Corps artillery. The development and maturation process of the III Corps artillery is traced from its first combat experience at Metz through its employment during the initial stages of the Battle of the Bulge. This study discusses the pre-war training, doctrine of the period, and development and use of the Field Artillery Group. Actions taken by III Corps prior to and during the attack are analyzed to review their employment techniques and compliance with the doctrine of the period.

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Finally, I dedicate this study to the memory of a citizen/soldier, professional artilleryman, and proud member of C Battery, 177th Field Artillery Battalion - my father, John Ravaud Morton.

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CHAPTER ONE

At the Third Army Artillery Conference at BAD WIESSEE, GERMANY, 30 May 1945, General George S. Patton said...

"I think that in evaluating artillery, the proof of the pudding is in the eating. We won the war and it was largely won by the artillery. I think it is very important that you now record on paper what you did (not what you think you did), so that the artillery in the next war can start off where you stopped". (1)

It is in this spirit that this study has been attempted.

The purpose of this study is to analyze the employment of field artillery (FA) assets by the III Corps during 18 - 26 December 1944. During this time the III Corps was responsible for control and employment of 25 different field artillery battalions. The methods used to control and direct the fires of these battalions is the basis of this thesis. The timeframe of 18-26 December was selected because during this time the III Corps participated in the attack to relieve BASTOGNE, BELGIUM. This attack is a good example of judicious employment of field artillery. The operation contains all the basic elements of the field artillery mission - Move, Shoot and Communicate.

This introductory Chapter will discuss who participated in the attack, the methodology used in the research, the assumptions upon which the research was conducted, definition of terms, and the organization and significance of the study.

The following FA units were assigned to III Corps during the period covered by this study and participated in the attack to relieve BASTOGNE:

Hq and Hq Battery, III Corps Artillery

288th FA Observation Bn

177th FA Bn (155mm H)

253rd FA Bn (105mm H)

274th FA Bn (105mm H)

776th FA Bn (155mm H)

193rd FA Group

696th Armored FA Bn (105mm H)

179th FA Bn (155mm H)

949th FA Bn (155mm H)

203rd FA Group

176th FA Bn (4.5" G)

731st FA Bn (155mm G)

402nd FA Group

561st FA Bn (155mm G)

559th FA Bn (155mm G)

578th FA Bn (8" H)

404th FA Group

512th FA Bn (105mm H)

752nd FA Bn (155mm H)

4th Armored Division Artillery

22nd FA Bn (105mm H)

66th FA Bn (105mm H)

94th FA Bn (105mm H)

26th Infantry Division Artillery

101st FA Bn (105mm H)

102nd FA Bn (105mm H)

100th FA Bn (155mm H)

263rd FA Bn (105mm H)

80th Infantry Division Artillery

313th FA Bn (105mm H)

314th FA Bn (105mm H)

315th FA Bn (155mm H)

905th FA Bn (105mm H) (2)

This listing does not reflect the organization for combat. The records of some of these units were used as primary sources for the analysis of employment techniques, tactics and procedures. As of 180001A Dec 44 only two of these battalions (the 696th and the 177th) were assigned to III Corps. Over the next eight day period all of these units were attached to III Corps. Many of these units moved great distances, in some cases more than 150 miles. The employment of this vast amount of field artillery is the focus of this study.

Historical research methodology was used for this study. The primary sources were After-Action reports, unit journals, unit standing operating procedures, and official documents, studies and reports. Secondary sources included magazine articles, newspaper reports of the actions, and professional journals of the period. Published books were only used for an overall review of the action and were not primary sources for descriptions of the actions.

This study does not address the entire spectrum of combat actions taken by the III Corps. It is limited to an analysis of the employment of the field artillery and the effect of that employment on the battlefield. It is specifically limited to an analysis of the employment of 25 FA battalions listed previously.

This study has been organized around the hypothesis that the employment of the artillery during this battle was effective due to the standardization of procedures and employment techniques and that these techniques have applicability to the modern battlefield. This standardization allowed 25 different FA battalions to be assembled in a very short period of time and have a significant influence on a major battle. The several assumptions for this study were:

(1) The field artillery had an impact on the outcome of the attack.

(2) The field artillery support was a coordinated effort.

(3) The procedures used by the field artillery can be related to the doctrine of 1944.

Several of the terms used through-out this study are

different from the connotations they carry today. When the following terms are used in this study they will have these definitions:

" Direct Support - Direct support artillery is retained under the control of the artillery commander, but operates primarily with and for the supported unit. If the maneuver of the supported unit makes it necessary for the direct support artillery to displace to provide proper support, that artillery displaces without order from its higher headquarters and reports that it is doing so.

General Support - General support artillery is retained under control of the higher artillery commander for employment anywhere in the sector of operation of the unit as a whole.

Attachment - When an artillery unit is attached to any other organization, the higher commander relinquishes direct control of that artillery and it becomes as much a part of the unit to which it is attached as are the organic organizations of that unit.

Reinforcing - An artillery unit given the mission of reinforcing the fires of another unit establishes liaison with that unit and gives the reinforced unit priority in calling for fires. It remains under control of the higher commander."

General Support/Reinforcing - A combination of the general support and reinforcing missions. The artillery is maintained under the control of the higher artillery commander. The unit assigned this mission responds to calls for fire support from the reinforced artillery battalion first. The unit with this mission is positioned on the battlefield by the higher artillery commander. (3)

The remainder of the thesis is organized into four Chapters. Chapter Two discusses the doctrine of 1944, the functioning of group headquarters, and the beginnings of

standardization as reflected in pre-war training. Chapter Three concerns the pre-attack phase, the re-organization of the field artillery, the movement to contact and historical relationships among units. Chapter Four analyzes the attack phase of the battle, the Corps employment procedures, historical relationships among units and the employment of attached artillery by each division involved. Chapter Five is devoted to summary and conclusions.

This study should be of value to field artillerymen in particular, and combat theorists in general. The rapidity of movement on the modern battlefield will again pose problems similar to those faced by III Corps. Namely: How do we assemble and employ the field artillery support for a massive counter offensive against an enemy who has had considerable success in a surprise attack? We could well be faced with employing field artillery units who do not have long-term supporting relationships with the attacking ground gaining arms.

"It is particularly important that operations and methods of corps artilleries are recorded and studied..." (4)

By tracing the employment of the field artillery units in a major battle this study makes a small beginning at what BG Lentz suggests.

CHAPTER ONE ENDNOTES

1. George S. Patton, Jr, as quoted in XII Corps Artillery in Combat , (Regensburg, Germany, U S Army, 1945), p.i.
2. US Army, Field Artillery and Tank Destroyer Weekly Summary #21, 18001A Dec - 242400A Dec 44 , (APO 403, 25 December 1944), p. 1.
3. William J. Lewis, LTC, "Reinforcing Artillery", Military Review 34, January 1944, p. 56.
4. John M. Lentz, BG, XII Corps Artillery in Combat , (Regensburg, Germany, U S Army, 1945), p.i.

CHAPTER TWO

This Chapter discusses the doctrine of 1944. The purpose of this discussion is to establish a base for comparison with the action of the battle to follow in later Chapters. Presented first in this Chapter is an overview of field artillery doctrine, then the specific functions related to non-divisional artillery. After establishing the doctrinal base, an example of how the doctrine was applied follows. This Chapter addresses pre-deployment training as well as combat experiences.

The role of the field artillery has always been one of support to the maneuver arms. This was true from its inception and into World War II.

"It contributes to the action of the entire force by giving close and continuous fire support to infantry (cavalry)(armored) units and by giving depth to combat by counterbattery fire, fire on hostile reserves, fire to restrict movements in rear areas, and fire to disrupt command agencies".(1)

It should be noted that the writers of doctrine of the 1940's recognized the special relationship between the maneuver units and their supporting artillery. There was no attempt to describe roles or missions that would lead one to believe that artillery was intended for independent action. The documents concerning doctrine of the period are careful to describe the role of the artillery in

support terms. However, this description was not intended to demean the artillery capabilities. It was recognized that the artillery was a powerful and devastating weapon system.

The systems of the period were classified primarily by their range, mobility and firepower. Artillery classified as light was generally of 105mm and smaller. These systems were intended to be used by the divisions in contact as their primary direct support assets. Light artillery was highly mobile and characterized by a high rate of fire. Medium artillery included both the 4.5 inch gun and the 155 mm howitzer. It was less mobile, had a lower rate of fire, but delivered greater destructive power. Heavy artillery of the period was the 155mm gun, the 8 inch howitzer and later in the war the 240mm cannon. Once again, as in the case of the medium artillery, what was sacrificed in mobility and rate of fire was made up by increased explosive power of the ammunition. The chart below show the range and destructive power of each type of system.

WEAPON	CALIBER	RANGE	WEIGHT
Howitzer (M2)	105mm	12,150 yds	33 lbs
Howitzer (M1918)	155mm	12,400 yds	95 lbs
Howitzer (M1)	155mm	16,350 yds	95 lbs

Howitzer (M1)	8"	18,510 yds	200 lbs
Gun (M2)	155mm	20,100 yds	95 lbs
Gun	4.5"	20,500 yds	55 lbs
Gun (M1)	155mm	25,715 yds	95 lbs

Doctrine did not address each type of artillery system separately. However, each type of weapon was best suited to particular roles. For example, whenever possible it was better to organize the artillery so that the medium or heavy artillery concentrated on the counterbattery mission. This left the direct support artillery, generally the smaller caliber weapons, available to the units in direct contact with the enemy. The divisions of the time did not have a great deal of medium or heavy artillery organic. Generally, each division had only one battalion of medium artillery. Because the medium and heavy artillery were assigned to groups or the Corps artillery, the doctrine emphasized once again the supporting role of the artillery. In this case the support was provided by the medium and heavy battalions to their fellow artillerymen of the division battalions through the use of standard tactical missions.

The missions of the artillery were slightly different than the ones of today. They have already been defined in Chapter One, but they bear repeating here for

clarity's sake. The mission of direct support was one usually assigned to a battalion organic to a division. Even though the artillery was not organic to a regiment (or the combat command of an armored division) habitual associations were formed between regiment sized units and one artillery battalion. It was common to find the same FA battalion supporting the same maneuver unit throughout a campaign. Direct support battalions were maneuvered as necessary by their commander to provide the best support for the supported unit. Even though it is possible to see division artillery units listed under a Corps artillery, this is not meant to suggest control. The Corps artillery did not control the fires of the direct support units. However, the fire of the division artillery units could be used

"... on any target when ordered by the Corps Commander...or when the Corps Artillery Commander, through his knowledge of the flow of battle, is cognizant of the fact that certain battalions of division artillery are not being employed, their fires can and should be utilized by him to reinforce the fire on portions of the front where reinforcements are indicated. This is a matter for thorough understanding and mutual cooperation." (2)

In this manner, the Corps Artillery Commander exerted some influence over the units with a direct support mission. The mission of general support allowed the Corps Artillery Commander to exert direct influence. This mission was assigned to the medium and heavy artillery. It was the

method by which the Corps Artillery Commander could weight any particular portion of the zone of action.

Weight could also be applied through the use of the reinforcing mission. This mission was unique because a unit that performed this role answered calls for fire from another FA unit, not from a maneuver unit directly. This mission was considered to be secondary to the primary mission of general support. The mission of general support/reinforcing was a blend of the two distinct missions. The artillery commander could "Keep a string" on a battalion and simultaneously weight the main attack by assigning this mission.

The manual goes so far as to say that the reinforcing unit will

"... answer all calls for fire from the reinforced unit when answering such calls will not interfere with its primary mission..."(3)

Attachment of individual FA battalions occurred occasionally. However, more often a division would receive the attachment of a group. Attachment gave the division full responsibility for the groups employment, to include full tactical and administrative control of the unit. When attached to a division, the group's battalions could be used to perform any of the standard missions.

The standard tactical missions of direct support (DS), general support (GS), reinforcing (R) and general support/reinforcing (GSR) formed the basis for employment of the field artillery and determined how the artillery was organized for combat. In addition to the types of missions, the 1944 doctrine was also specific on the methods of observation, fire direction and coordination procedures to be used.

The most specific method of observation discussed in the doctrine of the period is that conducted by forward observers. These observers were allocated on a basis of one team per maneuver company. They usually came from the direct support battalion. Another source of forward observer assets was the Field Artillery Observation Battalion. Normally each Corps was assigned an observation battalion. This battalion was capable of locating enemy battery positions, primarily through use of sound and flash ranging, adjusting artillery and collecting intelligence. This last function was really a sub-set of it's adjusting function. Certainly one of the capabilities of anyone adjusting artillery was to see the battlefield and thereby collect intelligence. All forward observers supporting a maneuver unit were coordinated by a liaison officer. This liaison officer was usually located in the maneuver battalion operation center. His primary

responsibility was to insure that the forward observers did not fire on friendly troops. He accomplished this by monitoring calls for fire and insuring that targets requested were in fact enemy locations. Liaison officers, as well as forward observers, were also responsible for providing advice on the employment of artillery to their supported unit commanders. (4)

The overall observation effort was essentially a two pronged approach. On the one hand the forward observers and the liaison officers were responsible for providing the close support for the maneuver forces. The longer range observation assets, i.e. sound and flash and air assets, were responsible for identifying and neutralizing the enemy artillery. (The use of the sound and flash sections in the observation battalion could well serve as the basis of an interesting study, as could the role of the cub aircraft in field artillery observation.) Regardless of the method of target acquisition, all targets were processed in the fire direction center (FDC).

Fire direction centers were organic to each type of artillery battalion.

"Fire Direction is the tactical command of one or more artillery units, for the purpose of bringing their fire to bear upon the proper targets at the proper time." (5)

Groups and Corps also had fire direction centers. Primarily these were used to mass the fires of several battalions on one target, and to attack deep targets. The primary means of communication between fire directions centers was wire. This communication net included the Corps artillery FDC, any Group FDC in the Corps zone, and the FDC's of the division artilleries. Radio communication duplicated the wire as much as possible. This system of communication was critical to the ability of all the artillery to mass on one target. The conclusions on this topic reached by the The General Board included:

"...the ability to mass quickly and accurately the fires of many field artillery battalions on a single target was quite frequently responsible for the success of an operation... there was no substitute for massed artillery fires... these fires played a major role in the advance of our troops and in breaking up and disorganizing enemy counterattacks... these fires were carefully controlled and readily shifted to the desired location... these fires were available, on short notice, during all hours of the day and night and in all kinds of weather."(6)

These conclusions reflect not only on the FDC doctrine but also on the rather stringent requirements placed on units for coordination of fires.

The coordination effort was prescribed from maneuver battalion level all the way through Corps. It included such things as:

"Sending of liaison detachments to infantry battalions and assignment of missions to forward observers. Agreement with supported infantry commanders as to artillery support and signals for shifting fires...(and) any prearranged fires in order to facilitate designation of targets by infantry commanders, liaison officers, and air and artillery observers." (7)

The units, both field artillery and maneuver, planned numerous concentrations. The value of these pre-arranged targets was that each battalion within range could compute firing data. From this data it was a simple matter to shift to targets of opportunity nearby the concentration location. This is one of the primary reasons so much artillery was available on such short notice.

Coordination procedures were specific, but not so detailed as to preclude all flexibility. As with other portions of field artillery doctrine the emphasis was always on a joint effort between the supporting field artillery and the supported units.

Since it was not expected that field artillery would carry out independent actions, the units had to be organized in such a manner that they could perform their supporting roles for the maneuver units. This organization was built around the division artillery. The artillery organic to a division was the minimum necessary to provide the division with artillery support when facing weak resistance. (8) Whenever the situation exceeded this

weak resistance state additional artillery was allocated from Corps assets. The divisional artillery habitually performed the direct support role. Corps artillery was normally formed into groups and then the group was attached to a Division or it was assigned one of the standard missions. All the units of the group would have a common mission. The group was by no means a permanent structure.

What follows is a chronological listing of the group assignments for one Corps artillery battalion over the course of its European Theater assignment. This listing is included to give some indication of the fluid nature of an assignment to any particular group.

The 177th Field Artillery Battalion arrived on the continent on 21 July 1944. Between its arrival and the termination of hostilities it was assigned or attached to the following Corps and Groups:

DATE	GROUP	CORPS
21 JUL 44	5TH FA GP	XX
28 AUG 44	ATTCH'D 943RD FA BN	XX
3 SEP 44	204TH FA GP	XX
5 NOV 44	204TH FA GP	III

18 DEC 44	- - - -	III
19 DEC 44	ATTCH'D 4TH	III
	ARMORED DIV	
26 DEC 44	- - - -	III
01 JAN 45	193RD FA GP	III
22 JAN 45	183RD FA GP	III
12 FEB 45	183RD FA GP	VIII
12 MAR 45	203RD FA GP	VIII
02 APR 45	416TH FA GP	XX
09 APR 45	5TH FA GP	XX
22 JUN 45	220TH FA GP	THIRD ARMY (9)

As is demonstrated by this chart, it was not unusual for a unit to move around quite a bit. This particular battalion was assigned to 7 different groups in 3 different Corps in the period of a year. This case is not unusual, in fact, its experience illustrates the rule not the exception. The same phenomena is also seen when examining the records of the groups.

Below is a chronological listing of the battalions assigned to the 404th FA Group during the period 18 Aug 44 through 1 Jan 45. (The first time the battalion is listed, the caliber of the weapon is noted in parentheses following the unit designation.)

DATE	BATTALIONS ASSIGNED	CORPS
------	---------------------	-------

18 AUG 44	558TH FA (155mm H)	XII
21 AUG 44	176TH FA (4.5" G)	XII
	512TH FA (105mm H)	
	731ST FA (155mm H)	
	974TH FA (155mm H)	
28 AUG 44	176TH FA	XII
	512TH FA	
	775TH FA (4.5" G)	
	974TH FA	
11 SEP 44	176TH FA	XII
	775TH FA (4.5" G)	
	974TH FA	
25 SEP 44	176TH FA	XII
	512TH FA	
	775TH FA	
	974TH FA	
09 OCT 44	512TH FA	XII
	775TH FA	
	974TH FA	
18 DEC 44	512TH FA	III
	752ND FA (155mm H)	
20 DEC 44	512TH FA	III
	752ND FA	
	949TH FA (155mm H)	
01 JAN 45	273RD FA (155mm H)	XII
	512TH FA	

752ND FA (10)

As with the 177th Battalion, the 404th FA Group had many and varied assignments in a very short period of time. In their case they controlled 9 different battalions in 2 different Corps in a period of 4 months.

The two previous lists demonstrate the flexibility that the group headquarters gave the Corps in organizing the field artillery. Groups were originally designed much like a current brigade headquarters. That is, it was a tactical headquarters with no battalions organic to it. The primary function was to assign missions for tactical employment of attached battalions, exercise fire direction, and supervise training of attached battalions.

(11)

"The flexibility of the new organization makes it readily possible to form task forces without reorganization of units or disruption of the old fixed regimental organization and at the same time permits a massing of means as required by the situation." (12)

The original plan was for the groups to form in the United States, train and then deploy to a theater of operations as an entity. However, due to training difficulties, shipment schedules, and a myriad of other difficulties, this seldom occurred. Upon arrival in England, another attempt was made to form groups and

deploy them to the European Theater as an entity. This effort also failed. Groups were often assigned to a Division or Corps with no battalions attached, as was the case with the 404th cited earlier.

"The initial functions of the group headquarters after landing consisted of assisting the divisions, to which they were attached, in supervision and fire direction of the available artillery. Some groups performed counter-battery functions for the division, others acted as an additional division artillery fire direction center, and still others performed administrative duties on the beach."
(13)

This piecemeal commitment to combat for group headquarters set the pattern for the rest of the war. Groups as well as non-divisional artillery were shifted from Corps to Corps and in some cases from Army to Army throughout the remainder of the conflict. This flexibility became the hallmark of the non-divisional artillery units.

This flexibility was not created by the War Department doctrine however.

"The various higher commanders developed their own doctrines on the functions and use of the field artillery groups. Some commanders attempted to retain groups and battalions together while others shifted battalions continuously from one group to another without regard to continuity of command. Regardless of the various individual ideas on proper organization for combat, the flexibility of the field artillery group organization gave

commanders the necessary weapon to meet rapid moving and highly mobile warfare." (14)

As noted above, each Corps Commander developed his own ideas on how the group should be employed.

"The III Corps Artillery habitually attached all non-divisional light battalions to divisions and, when the available artillery permitted, an additional 155mm howitzer battalion was also attached to an infantry division. A group consisting of two 155 howitzer battalions, one 155 mm gun battalion and one 8 inch howitzer battalion reinforced the fires of each infantry division artillery. A group consisting of one 4.5 inch gun battalion and one 155mm gun battalion (self-propelled) reinforced the fires of an armored division. A 155 mm howitzer battalion was attached to the latter group when it was available. All other artillery was in general support." (15)

This is an accurate description of how the III Corps deployed artillery during the attack commencing 22 December 1944.

Even though the groups were never intended to have organic battalions, it was expected that a group would train with certain battalions and then deploy to combat with these same battalions. The doctrine writers of the period did not envision the vast amount of shifting among groups that eventually occurred. However as the war progressed this shifting from one group to another became the norm.

The ease with which these shifts were made was in great part a result of the uniformity of the training given to each battalion. The records of the tests administered by the Army Ground Forces board reflect this uniformity. Each battalion and group was put through a series of rigorous examinations before being rated as satisfactory i.e. combat ready. The 404th FA Group test results serve as a typical example. The 404th was administered the tests during the period 17-20 April at Camp Hood, Texas. During these tests the 772nd and 773rd Field Artillery Battalions were attached to the Group. The Group headquarters was rated "satisfactory" and each Battalion was rated "very satisfactory". The tests included tactical employment as well as technical fire direction procedures. Had it not been for the standardization of this testing the shifting of battalions among groups would not have been accomplished with such apparent ease. To give the reader an appreciation for detail of these tests, Appendix One contains the results of the 404th FA Group test.

The employment of the groups and their attached battalions is a good example of the adaptability of doctrine to the needs and circumstances of war. The fact that this procedure was followed throughout the war is a testament to its validity. In later Chapters it will be

demonstrated how the flexibility of group employment was meaningful in providing timely and sufficient artillery fire support.

The concluding portions of this Chapter describe a small portion of the action during the attack to relieve BASTOGNE conducted by the 4th Armored Division (AD). The 4th AD was one of the divisions attached to III Corps. This action depicts doctrinal employment of the field artillery.

The 4th AD was on the left flank of the III Corps and had the mission of opening a corridor into BASTOGNE. The artillery with the Division was organized as follows: (A detailed discussion of this organization will be presented in Chapter Four)

Combat Command A - 66th FA (105mm H) (organic),
274th FA (105mm H, attached
from III Corps)

Combat Command B - 22nd FA (105mm H) (organic),
253rd FA (105mm H, attached
from III Corps)

Combat Command R - 94th FA (105mm H) (organic),
Btry C, 177th FA (155mm H,
attached from III Corps) (16)

402nd FA Group - 561st FA (155mm G)
(attached to Div) 559th FA (155mm G)
578th FA (8" H) (17).

This organization is typical for this period of the war. It reflects that the light artillery (the 105mm's) was attached to the division and that one group of medium and heavy artillery was assigned a mission of general support to the Corps with a further mission of reinforcing the Division Artillery. Communications were established among all these firing units and the Division Artillery Headquarters and the Group Headquarters. (18) The forward observers assigned to the maneuver companies were from the organic artillery battalions and no additional observers were assigned by Corps. (19)

The general plan for employment was for artillery to fire on all towns before the infantry or tanks entered. This was an attempt to suppress the expected anti-tank defenses and to suppress any infantry direct fire weapons. Artillery fire was delivered on towns by all available artillery, not just that in direct support to one of the Combat Commands. The coordination for this was done at Division Artillery headquarters, despite some communication problems caused by terrain and weather. (20) The most dramatic example of the coordinated effort was on the town of ASSENNOIS, BELGIUM.

The 37th Tank Battalion, commanded by LTC C. W. Abrams, was attached to Combat Command Reserve. This Combat Command had the mission of covering the left flank of the Division. LTC Abrams mission was to cover in the direction of SIBRET, BELGIUM. However, by 1500 on the 26th of December LTC Abrams and his 37th Tank Battalion were only 4 kilometers from the perimeter of BASTOGNE. Because SIBRET was reported to be heavily defended, LTC Abrams decided to ignore his original mission and attempt a breakthrough to BASTOGNE. The last town in his path was ASSEN0IS.

"Lt Col Abrams radioed back to his S-3 and said, 'this is it'. A few minutes later Capt Cook, Ln O from the 94th FA Bn to CCR, received a radio message back at the CCR CP at REMOIVILLE from Abrams telling him to have all artillery prepared to fire on ASSEN0IS on call. Cook radioed division artillery to have them make arrangements for the 22 and 253 to prepare to fire. The 94 was already registered on the target and firing data was transmitted to Div Arty. The artillery plan was for the three light Bns to fire battalion 10 volleys with the 155 Btry to fire on the center of the town... During this short but intense shoot on ASSEN0IS approximately 360 rounds of 105 and 60 rounds of 155 were fired" (21)

What this depicts is that a maneuver commander, on the spur of the moment, was able to arrange for the fire of 3 FA battalions (105mm) and 1 attached 155mm Battery. This fire was directly responsible for the breakthrough at ASSEN0IS. There is some dispute as to whether this took

30 or 45 minutes, but the important point is that due to adherence to the employment practices prescribed in the doctrine a significant amount of artillery was available in a very short period of time. This example demonstrates the coordination between maneuver and artillery units as well as among artillery units. It also shows the ability of the artillery to quickly mass fire on a single target. It demonstrates the importance of a liaison officer and the sharing of fire direction data among units.

The most important lesson that this example illustrates is the speed and accuracy with which the artillery fire could be delivered. This fire came from a number of battalions in a number of different locations. It is a reflection of the consistent application of the period's doctrine. It is a tribute to the standardization effort that began with the Army Ground Forces tests before the war.

This has been just one short, concise example of the employment of the field artillery. The next Chapter addresses how the consistent application of the doctrine assisted in the pre-attack phase of this operation. Chapter Four discusses the attack phase and Chapter Five is the summary and conclusions of this study.

CHAPTER TWO ENDNOTES

- (1) US War Department, Field Artillery Tactical Employment , FM 6-20, 1944, p. 1.
- (2) US War Department, Field Artillery Tactics and Techniques of Division Artillery and Higher Artillery Echelons , FM 6-100, 1944, p. 49.
- (3) *ibid.*, p. 9.
- (4) FM 6-20, pp. 18-20.
- (5) *ibid.*, p. 30.
- (6) The General Board, Report on Study of Field Artillery Operations , undated, p. 106.
- (7) FM 6-20, p. 26.
- (8) FM 6-100, p. 2.
- (9) Third Army, Field Artillery and Tank Destroyer Operation Summary August 1944 - June 1945 , 1945, p. all.
- (10) 404th FA Group, History of Headquarters and Headquarters Battery, 404th FA Group, 1944 , 1944, pp. 2-3.
- (11) FM 6-100, p. 59.
- (12) The General Board, Report on the Study of Field Artillery Group , undated, p. 3.
- (13) *ibid.*, pp. 7-8.
- (14) The General Board, Field Artillery Group ,

undated, p. 8.

- (15) The General Board, Operations , pp. 103-104
- (16) Capt Harold V. McCoy, as cited in 4th Armored Division, Relief of Bastogne , undated, p. 1.
- (17) Third Army, Operation Summary , 25 December summary, p. 1.
- (18) Capt Harold V. McCoy, as cited in 4th Armored Division, Relief of Bastogne , undated, p.1.
- (19) *ibid.*, p.2.
- (20) 4th Armored Division, Relief of Bastogne , undated, pp. 1-11.
- (22) *ibid.*, pp7-8.

CHAPTER THREE

This Chapter sets the scene for the battle that took place around BASTOGNE, BELGIUM, 22-26 December 1944. To appreciate the complexities of field artillery employment in this battle, it is important to begin with what the units were doing prior to the battle.

The discussion hereafter will depict a brief overview of the situation between 10 and 18 December. These parameters have been chosen because they describe the initial combat experience of the III Corps artillery. Some of the 25 battalions referenced in Chapter One will be placed in their respective positions and their employment described. This Chapter will address only 11 of these battalions because it was not until the actual attack that III Corps controlled all the battalions. The reorganization of the field artillery will be described, the historical relationships (or lack thereof) will be reported and finally the movement of these units to their new zones of action.

A brief overview of the III Corps battle experiences will place them in the proper perspective on the battlefield. III Corps headquarters arrived on the continent on 15 September 1944. Its first mission, while

assigned to Ninth Army, was to manage the reception and processing of all the soldiers of the 12th Army Group as they arrived over the beaches at Normandy. The Corps performed this mission until 10 October, when it was assigned to the Third Army. The doctrine of the period required that artillery never be kept in reserve. Even though the Corps Artillery did not have any firing units attached, this policy applied. Therefore, the Corps Artillery Headquarters was detached and assigned to the XX Corps Artillery Headquarters. The III Corps artillerymen served as a back-up fire direction center for the XX Corps. (1)

On 5 December, III Corps received its first combat mission directive from Third Army. The mission was,

"(1) to relieve XX Corps of responsibility in the Metz (France) area; (2) to relieve the 5th Division with elements of the 87th Infantry Division and contain the remaining Metz forts without directly assaulting any major fortification; and (3) to be prepared to receive additional troops and advance on Army order."
(2)

The forts at METZ had been by-passed by the Third Army in its drive through France and were being secured by the 5th Division. The relief of the 5th Division by the 87th Division was not completed until 8 December. Elements of the 87th Infantry Division arrived, relieved the 5th Division and control of the area passed to III Corps.

Control of the III Corps artillery did not pass to the III Corps at this time. Instead, the 244th Field Artillery Battalion, using captured German weapons, was assigned to conduct a program of harassing fire. (The men of the 244th Battalion had not received their howitzers yet.) In a move that was to become characteristic of the III Corps, indeed of the entire Third Army, the 87th Infantry Division was only assigned to III Corps until 9 December. The 26th Infantry Division relieved the elements of the 87th Infantry Division and was officially assigned to the III Corps on 12 December. (3)

In compliance with the instructions from Third Army, no direct assaults were made on the fort. The intent was to seal off the remaining Germans and await a surrender brought about by lack of food and ammunition. The plan was successful and on 13 December the garrison of 511 officers and 1,115 men surrendered unconditionally. (4)

What effect did this have on the eventual operations conducted by III Corps near BASTOGNE ? This type of flexibility and constant shifting of resources was a hallmark of the III Corps. They were assigned a rather simple mission of surrounding a fort and encouraging the defenders to surrender. Even though this was a relatively

easy combat mission, the Army commander saw fit to switch the infantry division performing the task. This experience certainly stood III Corps in good stead for the period to come when divisions would be switched even more rapidly. The importance also lies in the fact that for their first combat mission the III Corps was assigned a mission of relatively low risk. This gave them the opportunity to get combat experience without a great deal of exposure to casualties. The experience must have been invaluable for the commander and the staff. It was a chance to exercise their duties in an actual combat setting, rather than the administrative duties they had been performing. Headquarters and Headquarters Battery, III Corps Artillery did not participate in the reduction of the METZ forts. Nevertheless, they too were gaining valuable experience under the tutelage of XX Corps.

The XX Corps followed the same style of indoctrination to combat for the III Corps Artillerymen. As noted previously, Hq and Hq Btry, III Corps Artillery was assigned to the XX Corps on 10 October. They did not arrive in the XX Corps zone of action until 29 October. The official records do not reflect independent activity of the III Corps Artillery until 10 December. During the 29 October to 10 December timeframe they operated under the control of XX Corps. Throughout this period the

number and type of field artillery battalions varied. This experience, like that of the parent headquarters at METZ, would serve the artillery well in the battle of BASTOGNE. Early in their combat experience they were forced to practice a high degree of flexibility. (5)

As an example of that flexibility, traced below are the various organizations for combat for the period 10 December through 18 December 1944.

10 December -

87 Infantry Division Artillery
244 FA Bn (Enemy Weapons)

15 December -

183rd FA Group	assigned from XII Corps
696th FA Bn	assigned from XII Corps
775th FA Bn	assigned from XII Corps
177th FA Bn	assigned from XX Corps
282nd FA Bn	assigned from XX Corps
B Btry, 243rd FA Bn	assigned from XX Corps

18 December -

183rd FA Group	General Support
775th FA Bn (155mm H)	
244th FA Bn (Enemy Weapons)	

282nd FA Bn (105mm H)	Direct Support, 6th Cavalry Group
177th FA Bn (155mm H)	General Support, Reinforce 282nd FA Bn
696th FA Bn (105mm H)	Attached 6th Armored Division (6)

What the above data demonstrate is the maturation process of the III Corps Artillery. The organization for 10 December is interesting to note since III Corps artillery did not revert to Corps control until 15 December. (7) XX Corps assigned this artillery to III Corps and then assigned III Corps artillery the mission of supporting its own parent organization. By 15 December we can see a more doctrinal approach to the employment of the artillery assets. III Corps was assigned a number of battalions and in the period of three days task organized them in a manner that would set the pattern for the employment of the artillery within this Corps. Also note that in these same three days changes were made in the units assigned. The task organization of 18 December was typical of the way III Corps employed its various artillery battalions. The 183rd Group had two medium battalions attached and was assigned a mission of general support for the Corps. The 282nd, a 105mm battalion, was assigned a mission of direct support to one of the Corps'

maneuver elements and given the 177th, a medium battalion, to reinforce it's fires. The Corps armored division received the armored field artillery battalion, the 696th.

By the 18th of December the III Corps Artillery had been in combat 50 days, all but the last three days under the control of the XX Corps. Their period of tutelage was marked by rapid and frequent shifts in attached battalions. They were required to support both armored and infantry divisions. They gained valuable experience in the lessons of combat. As we shall see by their performance at BASTOGNE, they learned their lessons well. Prior to the BASTOGNE operation the Corps underwent its most radical reorganization, both of maneuver and combat support elements. They had a chance to practice their reorganization techniques after completion of their mission at METZ.

After the capitulation of the last METZ fort, III Corps was left with no combat mission. This respite was not to last long. On 16 December the Corps, now with its artillery attached, was assigned a new mission and new combat forces to conduct that mission. III Corps was directed to

"assume command of the 6th Armored Division, the 42nd Infantry Division, upon its arrival at Metz, and temporary command of the

6th Cavalry Group (reinforced). It further directed that III Corps (1) continue its present missions in Metz; (2) maintain maximum pressure against the enemy in the assigned zone; (3) drive the enemy East of the Saar River within the Corps zone on completion of refitting the 26th Infantry Division and on Army order; (4) seize and secure a bridgehead across the Saar River in the Corps zone on Army order; and (5) advance Northeast and seize Neunkirchen (sic) on Army order." (8)

The Corps task organized the artillery as shown previously under the 18 December listing. This mission was fated never to be completed.

On the evening of the 18th, while planning for the attack towards the Saar, the Corps was notified of the German breakthrough in the Ardennes. At 2200 hours that evening the Corps Chief of Staff directed that the headquarters be moved north to support an expected mission of attacking the southern flank of the German salient. (9)

Once again the III Corps had new maneuver elements assigned. The 80th Infantry Division and the 4th Armored Division were attached on 19 December per verbal orders of the Commander, Third Army. These elements joined the 26th Infantry Division already assigned to the Corps. Neither the 4th nor the 80th divisions were engaged at the time of their attachment. The 26th was in assembly areas around METZ conducting training. The Corps headquarters moved to ARLON, BELGIUM on the 20th and prepared for the attack.

The 80th and the 4th began their marches to the ARLON region on orders of the Third Army. The 4th and the 80th divisions closed on assembly areas near ARLON on the 21st. The 26th Division had completed its move by 2310 hours on the 20th. By late in the evening on 21 December the stage was set for the attack that would take place early on the morning of 22 December. Three divisions were in place and the planning for the attack was in full swing. All of the Divisions had completed long road marches, as had the Corps Headquarters. This description of the scene for the maneuver elements complete, the movements of the field artillery units that supported this attack are described.

(10)

On 19 December III Corps received 9 new field artillery battalions. All of these battalions had been actively engaged in their respective zones of action. They had been supporting the XX Corps and in some cases the XII Corps. III Corps organized these field artillery units in the following manner:

"A field artillery group, with three field artillery battalions, was attached to the 26th Infantry Division; a field artillery group with two field artillery battalions was attached to the 80th Infantry Division; and two field artillery battalions (armored) were attached to the 4th Armored Division. The remaining group with four field artillery battalions, one of which was an observation battalion, was retained by III Corps Artillery." (11)

By attaching the battalions and groups to the divisions, the Corps provided the divisions with the most flexibility for the employment of the FA.

The chart below depicts this narrative account and shows the units previous assignments. Chapter Four will show how units attached to the Divisions were employed.

UNITS	MISSION	FROM
4th Armored Division		
253rd FA Bn (105mm H)	Attached	XII Corps
274th FA Bn (105mm H)	Attached	XX Corps
26th Infantry Division		
193rd FA Group	Attached	XX Corps
179th FA Bn (155mm H)	Attached	XII Corps
696th FA Bn (105mm H)	Attached	6th Arm'd
(This battalion		Division
previously assigned		
to III Corps)		
949th FA Bn (155mm H)	Attached	XX Corps
80th Infantry Division		
404th FA Group	Attached	XII Corps
512th FA Bn (105mm H)	Attached	XII Corps

752nd FA Bn (155mm H)	Attached	XII Corps
III Corps Artillery control		
208th FA Observation Bn	Attached	Third Army
203rd FA Group	Attached	XX Corps
176th FA Bn (4.5" G)	Attached	XX Corps
177th FA Bn (155mm H)		
(This battalion previously assigned to III Corps)		
731st FA Bn (155mm H)	Attached	XII Corps
(12)		

What this list demonstrates is the varied background of the battalions and the flexibility of the field artillery. With the exception of the 696th and the 177th, all of these battalions were new to the III Corps. This list also shows the consistency of field artillery employment by the Corps. Once again, as on 10 December, only three medium battalions and one observation battalion were kept under direct Corps control. The rest of the artillery was attached to the divisions. By attaching these units to the divisions the Corps Commander was allowing his maneuver commanders as much flexibility as he could. Chapter Four will show how the division commanders used this artillery.

Historical relationships between field artillery and maneuver units had little or no effect on which field artillery battalion was assigned to a particular FA group or maneuver element. This was not the final organization with which the Corps conducted the eventual attack on the 22nd. By then they had received even more artillery assets. As will be seen in Chapter Four, the Corps weighted the division having the most success with this additional artillery. Before any firm plans could be made on the attack conducted, all of these units had to make substantial road marches. The discussion that follows details some of those moves.

Space does not permit, nor necessity dictate, a discussion of all of these moves. I have selected some of the more interesting shifts to demonstrate the ability of the field artillery to respond to rapidly changing situations. This discussion will also show how the artillery was able to quickly change missions. As was noted earlier, all of the field artillery units were new to the Corps on 19 December except two. According to the Corps after action report, all of the units had closed on their respective assembly areas by 21 December. All of the units were actively engaged when notified of their shift to the III Corps. (13)

The 253rd Armored FA Battalion was supporting the 87th Infantry Division and was located near the southern boundary of the XII Corps. It was about 15 miles south of SAARBRUCKEN, GERMANY (See Plate 1). Its mission at the time of notification to move was general support to XII Corps with a further mission of reinforcing the 80th Infantry Division upon its commitment. Upon its arrival in the assembly area designated for Combat Command B, 4th Armored Division, 12 miles NW of ARLON, it was assigned the mission of reinforcing the fires of the 22nd FA Battalion. The 22nd was organic to the 4th Armored Division. The 253rd completed a 150 mile road march, received a new mission and formed new relationships with a division directly. In its previous attachment to XII Corps it had been operating under the guidance of the 177th FA Group. (14)

The 179th FA Battalion was also attached to the 177th FA Group and had a similar mission as the 253rd. The 179th was in general support of XII Corps with a reinforcing mission for the 80th Infantry Division upon commitment. It was located near the 253rd and also had a 150 mile road march to its new area of operations (See Plate 1). Upon its arrival in the ARLON area, the battalion was attached to the 193rd FA Group and assigned

the mission of general support for the 26th Infantry Division. This was a change in mission, location, and group attachment. (15)

The last example of the change in missions, location and maneuver affiliations is the 404th FA Group. This group had the 512th and the 752nd battalions already assigned when ordered to move to the north. It retained possession of these battalions when it came under control of the III Corps. It was the only group assigned to III Corps that kept the same battalions attached. When ordered to march, it was in general support to the XII Corps and was located 12 miles SW of SAARBRUCKEN (See Plate 1). Upon arrival in the III Corps zone it was attached to the 80th Infantry Division. (16)

These three examples of the types of shifts made in the field artillery assets are included to give the reader an appreciation for the complexities of the situation. The III Corps, relatively new to combat, was responsible for assigning missions and controlling nine new field artillery battalions in a very short period of time. The battalions had to conduct arduous road marches over difficult terrain without the benefit of reconnaissance. Each unit shared the road march experience as well as changes in their mission and supported maneuver element.

Essentially, the Third Army formed a new Corps and shifted its direction of attack 90 degrees. As has been related above, this shift in direction required substantial moves on the part of virtually all the units assigned.

These moves were made with such apparent ease primarily due to a well developed and widely understood movement procedure. None of the documents reviewed for this study go into any detail on the specifics of the III Corps move to ARLON. This is not really surprising since the Corps had more important things to concentrate on during this time than publishing orders and annexes. One can imagine the frantic telephone and radio messages that must have occurred during this move north. The smooth shift of these forces from SAARBRUCKEN to ARLON is more a reflection on the Third Army than on III Corps. The Corps knew what battalions they would eventually receive, but did not control or plan the movement of these units.

The only mention of the planning conducted for this move is by General Patton, Commanding General, Third Army.

"It is noteworthy that all the operations, including plans for attack executed on 22nd December, were done by personal conference or by telephone, and that the highly complicated road and supply movements were only made possible by the old and very experienced General Staff of the 3rd Army and the high discipline and

devotion to duty of all the units involved."
(17)

The General Staff of the Third Army had a great deal to do with the smooth shift of these forces. The XII Corps apparently had a good plan also. The movement of the XII Corps Artillery to their new positions near ARLON was the subject of an Army Ground Forces Report published on 3 January 1945. A copy of this report is included as Appendix Two to this study. The units that were detached from the XII Corps and assigned to the III Corps would have followed similar procedures as they handed over their responsibilities to the remaining and incoming artillery units.

This Chapter has described the scene just prior to the start of the attack on 22 December. The manner in which III Corps operated in this time set the stage for the manner in which they would operate for the rest of the battle. The Corps had been consistent in the way in which it organized the field artillery for combat. It had practiced rapid and frequent shifts in maneuver units as well as field artillery assets. Finally, the Corps had been assigned its first real combat test. This test would examine their strengths and determine if their procedures are sound.

Chapter Four will discuss the attack phase and Chapter Five will draw conclusions about this study; but at this point it is possible to point out some tentative findings.

1. In all the documents reviewed for this study problems are never surfaced. Either the units were able to complete this shift without problems or they were just never included in official reports.

2. Even though III Corps was relatively new to combat, it had already experienced rapid changes in missions and assigned units before it embarked on this project. Under the XX Corps it had experimented with the way to organize the field artillery for combat and how to control it. They were comfortable with the operating procedures they developed.

3. The fact that all of these field artillery units had undergone standardized training was a significant benefit. All units understood their assigned missions and it was a matter of completing them, not a matter of inventing procedures.

4. The organization for combat designed by the III Corps reflects the typical procedures that this Corps used

throughout the remainder of the war. It attached the armored artillery to the armor division and reinforced the fires of the infantry divisions with 155mm assets.

Now on to the actual attack itself !

CHAPTER THREE ENDNOTES

- (1) III Corps, After Action Report, Dec 44 , 31
December 1944, p. 1.
- (2) ibid., p. 2.
- (3) ibid., p. 3.
- (4) Third Army, Field Artillery and Tank Destroyer
Operations Summary , 20 November 1944, p. 2.
- (5) Third Army, Field Artillery and Tank Destroyer
Operations Summary , 11 December 1944, p. 1.
- (6) Third Army, Field Artillery and Tank Destroyer
Operations Summary , 11 December 1944, p. 1 and
18 December 1944, p. 1.
- (7) Third Army, Daily Artillery Information
Summary , 15 December 1944, p. 2.
- (8) III Corps, After Action Report, Dec 44 , 31
December 1944, pp. 4.
- (9) ibid., pp. 5-7.
- (10) ibid., p. 8.
- (11) ibid., p. 9.
- (12) Third Army, Daily Artillery Information
Summary , 20 December 1944, p. 2.
- (13) III Corps, After Action Report, Dec 44 , 31
December 1944, p. 9.
- (14) Summers, Robert R., et. al., Armor at Bastogne
May 1949, Appendix VI, No. 4, p. liv.

- (15) 4th Armored Division, After Action Report
Dec 44 , undated, no page numbers
- (16) III Corps, After Action Report, Dec 44 , 31
December 1944, p. 9.
- (17) Third Army, Notes on Bastogne Operation ,
January 16, 1945, p. 4.

CHAPTER FOUR

This Chapter describes the actions by the field artillery units of III Corps during the period 22 - 26 December 1944. These dates constitute the period when III Corps conducted the attack to relieve BASTOGNE. The 26th of December is an arbitrary date. It has been chosen because on that day elements of the 4th Armored Division made contact with the beleaguered defenders of BASTOGNE. III Corps continued the attack long after the 26th, however. This study ends on the 26th because this period of time well demonstrates the employment of the field artillery.

This Chapter begins with a description of Field Order #1 published by III Corps on 21 December 1944. This Field Order established the initial organization for combat for all the elements of III Corps. No attempt has been made to describe all the combat actions of the divisions during this battle. Such a description could constitute the focus of a detailed study. This Chapter will describe the actions of the divisions as they pertain to the employment of their field artillery assets. The overview of the employment of the field artillery begins with a depiction of III Corps as a whole and concludes with the description of the FA employment by the three

divisions.

III Corps had established a Command Post at ARLON by the evening of 20 December. They knew what field artillery battalions they would receive and were in the process of creating their first Field Order. This Field Order is appended to this study as Appendix Three. The following information has been extracted from that Field Order.

The mission of the Corps was to advance North in Zone in direction of ST. VITH at H-Hour to destroy any enemy encountered. The 80th Infantry Division was on the right flank and in addition to the attack and destroy mission, was to protect the right flank and maintain contact with the XII Corps. The 26th Infantry Division, in the center of the Corps zone, was to attack and destroy the enemy and maintain contact with the 4th Armored on their left and the 80th Infantry on their right. The 4th Armored Division was on the Corps left flank and had the additional mission of protecting the Corps flank and gaining contact with elements of the VIII Corps. The Corps Artillery was organized as follows:

"d. Field Artillery:

(1) 203rd FA Gp:

attached: 176th FA Bn (4.5" Gun)
177th FA Bn (155mm How)

731st FA Bn (155mm Gun)
mission: General support, reinforce

fires 4th Armd Div with
one battalion 155mm guns

(2) 193rd FA Gp:
attached: 179th FA Bn (155mm How)
696th FA Bn (105mm How)
949th FA Bn (155mm How)
mission: attached to 26 Inf Div.

(3) 404th FA Gp:
attached: 512th FA Bn (105mm How)
752nd FA Bn (155mm How)
mission: attached to 80 Inf Div.

(4) 253rd Armd FA Bn attached 4 Armd Div.

(5) 274th Armd FA Bn attached 4 Armd Div.

(6) 288th FA Obsn Bn support of Corps" (1)

As was noted in Chapter Three, this is a typical field
artillery organization for combat by III Corps.

This was not all of the field artillery employed by
III Corps. Literally just hours before the attack another
FA Group was attached.

"Prior to the attack, the Commanding
General, VIII Corps offered Commanding General
III Corps the use of some of his artillery,
which he could not then employ. Consequently,
the 402nd Field Artillery Group with one
observation and four firing battalions, was
attached to III Corps. Of this group, one field
artillery battalion was in turn attached to the
4th Armored Division, and the remainder placed
in general support of Corps. All of these
battalions had seen hard fighting and had
suffered approximately 25 percent losses in both
equipment and personnel. Many of the personnel
losses, however, had been compensated for by the
acquisition of a number of other artillerymen
who had become separated from their units during

the initial German Advance." (2)

With the addition of this Group and its attached battalions, the Corps now had all the artillery it would employ during the attack on BASTOGNE. The only change made to this organization for combat was on 24 December when the 177th FA Bn was detached from the 203rd FA Group and attached to the 4th Armored Division.

Another listing of field artillery might seem repetitive, but it has been included here for use as a ready reference for the rest of this Chapter.

The final organization for combat during the attack was:

General Support to III Corps:

288th FA Obsn Bn

203rd FA Gp:

176th FA Bn (4.5 G)

731st FA Bn (155 G)

402nd FA Gp:

559th FA Bn (155mm G)

561st FA Bn (155mm G)

578th FA Bn (8" H)

4th Armored Division:

Organic Battalions:

22nd FA Bn (105mm H)

66th FA Bn (105mm H)

94th FA Bn (105mm H)

Attached:

253rd FA Bn (105mm H)

274th FA Bn (105mm H)

177th FA Bn (155mm H)

(attached effective 24 Dec)

776th FA Bn (155mm H)

26th Infantry Division:

Organic Battalions:

101st FA Bn (105mm H)

102nd FA Bn (105mm H)

180th FA Bn (155mm H)

263rd FA Bn (105mm H)

Attached:

193rd FA Gp:

179th FA Bn (155mm H)

696th FA Bn (105mm H)

949th FA Bn (155mm H)

80th Infantry Division:

Organic:

313th FA Bn (105mm H)

314th FA Bn (105mm H)

315th FA Bn (155mm H)

905th FA Bn (105mm H)

Attached:

404th FA Gp:

512th FA Bn (105mm H)

752nd FA Bn (155mm H) (3)

Before moving on to how each division organized the field artillery, some comments on the final organization by the Corps are appropriate. Historical relationships among firing battalions were essentially ignored in this organization. Only the 404th FA Group with its previously assigned units was attached as a group to a division. Once again the Corps allocated the majority of the artillery to the divisions. The Corps only kept five battalions in general support. This organization reflects the maximum of decentralization of control that was feasible.

" . . . During the first part of the week, several corps artillery groups were attached to divisions, and battalions within groups, in some cases, were in turn further attached to divisional artillery battalions. This decentralization of corps artillery was necessitated by wide division zones of action, rapid movement with its inherent communication difficulties, and the combat-team type of action that was characteristic at this time. Toward the last part of the week, the situation had become somewhat stabilized and centralized control of the corps artillery was effected."

(4)

The advantage of centralized control was the perceived ability to mass the Corps artillery quickly. However, the ability to mass was not lost, it was just moved one echelon lower. The divisions which had the assets to mass artillery fires did so frequently during the attack. The ability to mass fires quickly was largely a function of how each division organized its attached artillery for combat. Each of the divisions organized their attached and organic artillery in a slightly different manner.

The 4th Armored Division had been assigned the mission of attacking towards BASTOGNE and protecting the Corps left flank. It had been assigned the artillery as noted above. The organization for combat was:

On 22 December:

By 24 December:

Combat Command A

66th FA Bn (105mm H0

66th FA Bn (105mm H)

274th FA Bn (105mm H)

274th FA Bn (105mm H)

177th FA Bn (155mm H) (-)

Combat Command B

22nd FA Bn (105mm H)

22nd FA Bn (105mm H)

253rd FA Bn (105mm H)

253rd FA Bn (105mm H)

776th FA Bn (155mm H)

Combat Command R

94th FA Bn (105mm H)

C Btry, 177th (155mm H)

DivArty

94th FA Bn (105mm H)

----- (6)

(5)

There are several unusual arrangements in both these listings.

The organization for 22 December is unusual in that the 94th FA Bn is shown in the body of the attack order to be "...direct support for Res Cmd and general support for Div". (7) In the Troop listing section of the order it is shown under Division Artillery control. This is probably just a convenient method to show that while Reserve Command was held in reserve that the battalion would fire general support missions for the division. This is in fact what the battalion did until the Reserve Command was committed.

The organization for the 24th reflects complete decentralization. Division Artillery had no direct control over any firing units. This command relationship is unique, but proved to be effective. The Division Artillery headquarters continued to serve as a coordinating headquarters. The assignment of direct

support missions to two battalions supporting the same organization appears unworkable. It wasn't. Each Combat Command broke into attack echelons and each echelon then was assigned a field artillery battalion for support. For example Combat Command A organized a left column called "Alanis" and a right column called "Oden" and the 274th FA Bn and the 66th FA Bn were assigned to each column respectively. When the 177th FA Bn was assigned, it received the mission of general support to the entire command. A similar arrangement apparently was made in Combat Command B, although it is not detailed in after-action reports. As is noted in the 24 December organization, one battery of the 177th was detached from its parent unit and attached to Combat Command R. It was used by Combat Command R in a general support role. (8)

This organization for combat was certainly creative, but it did not violate the overall concept for the employment of field artillery. As noted in the Allied Force Artillery Information Letter . . .

"In the division, organization for combat should provide artillery in direct support and artillery in general support. In the corps, it should provide for reinforcing the fires of division artillery and artillery to execute counterbattery, harassing and interdiction fires. In general, tactical control of artillery battalions should be maintained at the level of the infantry command in whose sector the weapon involved can be effectively employed." (9)

The organization for combat certainly complied with these precepts, even though it may appear to be unusual on a surface appraisal.

The Division Artillery Commander was well within his rights to organize the artillery as he did. The units from Corps had been attached to his Division. Attachment carried permission to organize the artillery as he saw fit. This arrangement of artillery was certainly effective as demonstrated by the story of ASSENNOIS in Chapter Two. The other two divisions took a different approach to the organization for combat. The 80th Infantry Division used a more traditional approach to field artillery organization for combat.

The 80th Infantry Division had been assigned the mission to attack north in zone and destroy the enemy; maintain contact with XII Corps; protect the Corps right flank; and maintain contact with the 26th Infantry Division on the left. III Corps had attached the 404th FA Group (consisting of the 512th and 752nd battalions) to assist in this mission. Since the group was attached, the division was free to organize the field artillery in any manner. The division plan was to attack with the 318th and 319th Infantry Regiments abreast and the 317th in reserve.

The field artillery was organized as below:

UNIT	FA UNIT/MISSION
317th Inf Rgmt	(None - Division Reserve)
318th Inf Rgmt	314th FA Bn (105mm H) DS 752nd FA Bn (155mm H) R, 314th 512th FA Bn (105mm H) GS to Div, R 314th
319th Inf Rgmt	905th FA Bn (105mm H) DS 315th FA Bn (155mm H) R, 905th 313th FA Bn (105,, H) GS to Div, R 905th (10)

404th FA Gp GS, 80th Inf Div (11)

This is a more doctrinal approach to organizing field artillery. The Division balanced its artillery allocation equally among the two attacking infantry regiments. The division artillery, while not supervising any firing unit directly, kept control of the 313th and the 512th by assigning them the GSR mission.

This flexibility paid off on 23 December when the 317th Infantry Regiment passed through the 318th and the 318th reverted to division reserve. The new organization for combat became:

UNIT	FA UNIT/MISSION
317th Inf Rgmt	313th FA Bn (105mm H) DS 512th FA Bn (105mm H) R, 313th
318th Inf Rgmt	314th FA Bn (105mm H) DS 752nd FA Bn (155mm H) R, 314th
319th Inf Rgmt	905th FA Bn (105mm H) DS 315th FA Bn (155mm H) R, 905th
404th FA Gp	GS, 80th Inf Div (11)

The 318th became reserve in name only. It continued to have a mission of containing hostile forces in ETTELBRUCK. While the 3rd Battalion contained the enemy, the 1st and 2nd were detached from the Division and attached to the 4th Armored Division.

The 1/318th Infantry was attached to Combat Command A and 2/318th Infantry was attached to Combat Command B. Neither the 80th Infantry Division records nor those of the 4th Armored Division reflect that the 318th brought any artillery with them during this time. This is certainly in keeping with the doctrine as none of the artillery battalions were attached to the regiment, but rather placed in support through DS, R or GSR missions. (12)

This division, like the 4th Armored Division, demonstrated a flexible approach to the employment of the field artillery. It is interesting to note that although the 404th Group was attached to the division with two battalions, it did not supervise the firing of these units. In fact the units were not even supporting the same maneuver element by 23 December. On 26 December the 80th Division was reassigned to XII Corps. The 404th FA Group was transferred along with the division. (13) The discussions of the 4th Armored and the 80th Infantry have described the flank units of III Corps; now to the center division, the 26th Infantry.

The 26th Infantry Division had the mission of attacking north in Zone to defeat enemy resistance and to maintain contact with the 4th Armored on their left and

the 80th Infantry on their right. According to their G-3 periodic report from 21 December 1944, their plan was to attack with the 328th Infantry regiment on the left and the 104th Infantry Regiment on the right. The 101st Infantry Regiment was held in division reserve. The field artillery was organized as below.

UNIT	FA UNIT/MISSION
328th Inf Rgmt	263rd FA Bn (105mm H) DS
	101st FA Bn (105mm H)
	R, 263rd
	179th FA Bn (155mm H)
	R 263rd
104th Inf Rgmt	102nd FA Bn (105mm H) DS
	180th FA Bn (155mm H)
	R, 102nd
	696th FA Bn (105mm H)
	R, 102nd
Div Arty	949th FA Bn (155mm H)
	GS to Div
193rd FA Group	Alternate Div Arty FDC (14)

This, like the 80th Infantry, is a doctrinal organization

for combat. Like the 80th Infantry Division, the FA Group assigned to this division was split up. It was noted in post war discussions that control of more than one reinforcing battalion was difficult. (15) Having more than one battalion in a reinforcing role would certainly tax the reinforced battalion's ability to control all the fires simultaneously. If control during this battle was a problem, it was not so noted. The documents reviewed for this study do not discuss the role of an alternate FDC. It may well have been that the 193rd FA Group served as a controlling agency for the reinforcing battalions.

The only other noteworthy difference when compared to the 80th Infantry, is that this division kept one battalion in GS to the Division. As was discussed in Chapter One, this is one method that the Division Artillery Commander could use to maintain firing units under his direct control. The 26th Division did not reorganize until after 26 December, so this organization for combat was the only one used in this study. The only other comments about the artillery in the G-3 periodic reports of this division are observations such as: "normal support by field artillery units", and "normal missions in support of Infantry". (16)

As has been noted in the discussions above, each

division organized its organic and attached artillery differently. This is entirely consistent with the doctrine of the period. The mission of attachment allowed the commander to organize the artillery he received through attachment in any manner he desired. Chapter Five will discuss the similarities and differences in their methods.

Before moving on to Chapter Five and the summary and conclusions of this study, some facts bearing on the artillery's impact on this battle are presented.

During the period 22-26 December the artillery units with the corps fired over 55,000 rounds of ammunition of all types and calibers. This total represents approximately 4,387,746 pounds (2,194 short tons) of ammunition. Truly impressive totals for five days of combat. Ammunition never presented a significant problem.

". . . ammunition supply difficulties caused momentary ammunition shortages during the week (18-24 Dec), but did not adversely affect the operations....Ammunition expenditures were moderate with III Corps and XII Corps contributing most to the total. For several days ammunition resupply was extremely difficult. Field Artillery battalions were obliged to travel long distances in order to reach ASPs and depots. This condition was aggravated by the necessity of supplying three corps from one ASP. However, within a few days new advanced railhead ASPs were opened which did

much to alleviate the situation. (17)

This however was not the peak of ammunition expenditure for the entire battle of the Ardennes.

During the week of 1-7 January, III Corps fired

"... more than 125,000 rounds of 105mm ammunition. While expenditure of all calibers exceeded 432,000 rounds. During the period 290600 December - 050600 January a total of 5,500 tons of artillery ammunition was fired in the pocket southeast of BASTOGNE in III Corps area." (18)

The supply of ammunition is beyond the focus of this study. Suffice it to say here that it apparently had no adverse affect on this portion of the overall battle.

Literally all the after action reports reviewed for this study were complimentary of the field artillery. It would require another chapter to just quote all the entries that refer to the effectiveness of the artillery, and so won't be attempted. Suffice it to mention here the quote from Chapter One detailing the bombardment of ASSENNOIS and this quote from the III Corps after action report.

"During the 10 days of the assault III Corps losses amounted to a total of 3,330 Killed, wounded and missing, of whom only 303 were killed. On the other side of the ledger, the enemy lost 4,730 captured, an estimated 4,051 killed, and an estimated 28,357 wounded, or a ratio of 11 to 1 in our favor. The high enemy losses were in great part a direct result of artillery fire. The large surprise

concentrations of artillery fire caused a tremendous number of enemy casualties and in at least two actions were credited with breaking up large scale attacks." (19)

One of the reasons the artillery was able to concentrate so quickly was a procedure called "Serenade". This procedure is not detailed in any of the documents reviewed for this study from the Combined Arms Research Library of Fort Leavenworth. Therefore, it is included as Appendix Four to this study.

Perhaps the best conclusion for this Chapter comes from the III Corps after action report.

"The move of the Corps to Arlon and the execution of the attack were born of need and conceived in urgency. The suddenness and unexpected strength of the enemy assault, his rapid initial successes and the early American reverses left no time for lengthy planning, long thought-out orders, or extensive reconnaissance. On the contrary, time was the all-important factor...This was recognized fully, and the detailed niceties which normally would be considered essential in planning such an operation were sacrificed in part to gain surprise and a swiftly mounted attack. Only thirty-six hours elapsed during the time the Corps Headquarters first received its movement instructions, moved to Luxembourg and then to Arlon. In three days, three divisions had received orders, planned and coordinated their movements, and moved from sixty to eighty miles to new and unfamiliar assembly areas...It meant that the attack must be launched with a minimum knowledge of the friendly and enemy situation. Equally important, it meant that a Corps whose components had never before operated as one unit must be quickly welded into a smoothly functioning team." (20)

The pride that the author(s) of this passage

felt is readily apparent. Chapter Five will draw conclusions, from the field artillery viewpoint, about the sources of this pride.

CHAPTER FOUR ENDNOTES

- (1) III Corps, After Action Report, Dec 44 , 31
December 1944, p. 9.
- (2) ibid., p. 11.
- (3) Third Army, Field Artillery and Tank
Destroyer Operations Summary , 25
December 1944, p. 1.
- (4) Third Army, Field Artillery and Tank
Destroyer Operations Summary , 1
January 1945, p. 7.
- (5) Summers, Robert R., et. al., Armor at Bastogne
May 1949, Appendix VI, No. 4, p. liii.
- (6) ibid., Appendix VI, No. 9, p. lxv.
- (7) ibid., Appendix VI, No. 4, p. liv.
- (8) ibid., Appendix VI, No. 9, p. lxv.
- (9) Allied Force Headquarters, Field Artillery
Information Letter (US) #6 , May 44, p. 4.
- (10) 80th Infantry Division Artillery, After
Action Report , December 44, p.4.
- (11) 404th FA Group, History of Headquarters
and Headquarters Battery, 404th FA
Group, 1944 , June 1945, p. 6.
- (12) 80th Infantry Division, After Action
Report Dec 44 , Dec 44, p. 6.
- (13) ibid., p. 7.

- (14) 26th Infantry Division, G-3 Periodic Report, 211200-221200 Dec 44 , 22 Dec 44, contained in 4th Armored Division, After Action Report Dec 44 , undated, no page numbers.
- (15) Slack, J. E., Notes and Observations on Artillery Operations , undated, pp. 2-3.
- (16) 26th Infantry Division, G-3 Periodic Report, 211200-221200 Dec 44 , 22 Dec 44, contained in 4th Armored Division, After Action Report Dec 44 , undated, no page numbers.
- (17) Third Army, Field Artillery and Tank Destroyer Operations Summary , 8 January 1945, pp. 7-8.
- (18) *ibid.*, p. 8.
- (19) III Corps, After Action Report, Dec 44 , 31 December 1944, p. 21.
- (20) *ibid.*, p. 20.

CHAPTER FIVE

As stated in Chapter One, the purpose of this study was to analyze the employment of the field artillery by III Corps during the battle to relieve BASTOGNE. This Chapter will summarize, draw conclusions and recommend areas for further study.

This Chapter is organized around the final conclusion of the study; the employment of the field artillery during this battle was characterized by adherence to a set of standardized procedures and doctrine. This standardization was apparent from the initial training received by the battalions through the final employment in a battle. This conclusion does not imply that everything was always done in precisely the same manner. Rather, this standardization created the flexibility apparent in this battle. The findings presented here generally trace the outline of the previous Chapters.

As demonstrated in Chapter One, there was a definite lack of long term supporting relationships in this battle. The maneuver units had worked together in the past, but the vast majority of the field artillery support was added literally at the

last minute. Not only had most of the FA battalions not worked with the supported maneuver elements, they also had not worked with each other before this battle. This lack of a long term relationship had no effect on the outcome of the battle, however. As III Corps stated in their After-Action report, the challenge was to weld all the various units into an effective team in a very short period of time. (1) The similarity of the training received and the adherence to the doctrine of the period certainly contributed to the quick creation of this team.

The training received in the United States, before deployment to the theater, had a demonstrable effect on the field artillery. The common testing procedures, with the common standards, allowed all the FA battalions to have a similar reference point. This reference point was one of doctrinal background. The FA units had a thorough understanding of their responsibilities when assigned standard tactical missions. When they were assigned a mission of Reinforcing, for example, they understood their responsibilities and duties. This common understanding certainly enhanced their ability to quickly transfer from one command to another. These transfers were made with only the smallest of

adjustment necessary in their procedures.

These transfers are apparent in the shifting of the FA battalions from XII and XX Corps to III Corps and its attached divisions. As was demonstrated in Chapter Three, the FA battalions were completely reorganized in a two day period of time. This reorganization would not have been possible without the common application of the doctrine.

Application of the doctrine was not constricting. In fact standardization allowed the flexibility that was demonstrated throughout III Corps during this battle. This flexibility extended throughout the Army, as reported in the Army Ground Forces reports at the end of the war. (2) As that report depicts, each Corps developed their own preferences for the employment of their individual FA battalions and groups. These preferences however, did not violate the doctrine of the period. No matter how the artillery was organized, the organization always complied with the doctrine.

Compliance with doctrinal precepts was also apparent in the fire direction procedures. The imposition of the SERENADE procedure from the Third

Army Commander may appear on the surface to be constraining. However, it was not. This procedure demonstrates how a common practice, when used throughout a command, can enhance cooperation among widely dispersed units. Dispersed in space, type of weapon system and type of combat mission. This procedure allowed the massing of artillery in a quick and efficient manner. It was also readily adaptable to any level of combat. One can see these procedures used in the bombardment of ASSENNOIS. Although not specifically mentioned as the method that LTC Abrams used, the SERENADE process is readily apparent. SERENADE is another example of a common procedure that enhanced the flexibility of the FA.

The divisions under III Corps supervision also demonstrated flexibility in the way they organized the field artillery. The 4th Armored Division used complete decentralization of control. As described in Chapter Four, this Division assigned 2 FA battalions in direct support to each Combat Command. This appears to be a violation of doctrine. Normally only one FA battalion is assigned the mission of direct support. However, the manner that the 4th Armored used their Combat Commands makes this organization not only workable, but more responsive

to the needs of the ground commander. Each Combat Command was split into two columns. The commander of each column had one FA battalion in direct support. The 4th Armored Division's move to BASTOGNE was a series of movements to contact. By organizing the FA in this manner, the Division Commander had provided the most responsive fire support to each of his combat elements. This organization did not detract from the FA's ability to mass fires. The bombardment of ASSEN0IS proves this conclusion.

The 80th Infantry Division took a slightly different approach to the use of their FA support. In this case, the use of the GSR mission allowed the Division to maintain control of a portion of the FA, while still allowing the commander in contact with the enemy immediately available fire support. The use of the GSR mission also eased the transition problems when all three Regiments of the Division were in contact at the same time. The two battalions that had been assigned the GSR mission assumed a direct support and a reinforcing mission for the third Regiment. Since they had been operating under the direction of Division Artillery, it is valid to assume they were being kept abreast of the action and in fact had participated in combat. When they made

the shift to their new missions they were aware of the tactical situation and were able to provide continuous fire support. The continuity of the support would have been less effective if they had not been assigned the general support mission and instead had been only reinforcing one other unit.

The 26th Infantry Division kept one FA battalion in GS and assigned DS and R missions to the other battalions. They did not undergo a reorganization during the time of this battle, so it is difficult to evaluate their methods. However, in reports produced at the end of the war, it was noted that using two battalions to reinforce one other was a difficult process. The official records of the 26th do not reflect that this dual reinforcing scheme presented problems during this battle.

The common thread among the divisional methods of employment may not be apparent. The thread is that they all used standard tactical missions and that they kept their FA battalions intact as combat units. The one exception to this was the detachment of Battery C, 177th FA Bn (155mm H) in the 4th Armored Division. This aberration is explained however by the ammunition procedures in the 4th

Armored. The Division was often assigned a 155mm Howitzer battalion. So often in fact, that they carried 155mm ammunition with the Divisional battalions. The 94th FA Bn (105mm H) was assigned this responsibility. Upon their deployment to the ARLON region, the 94th was carrying this ammunition. When committed to battle, they did not have time to re-distribute all the 155mm ammunition to the 177th and ended up taking some of it with them along the road to ASSENQIS. In the midst of the battle, it was easier to send C Battery to shoot this ammunition than it was to transport the ammunition to other batteries of the 177th. (3) The detachment of C Battery, when viewed in this light, does not appear so unusual. Rather, it depicts another example of the flexibility of the FA and the use of expedient measures to respond to battlefield conditions.

The FA employment by each Division is marked also by their use of standard tactical missions of DS, R, GS, and GSR. These missions allowed a span of control that ranged from absolute complete decentralization in the 4th Armored to partial centralization in the 26th Division. The 26th Division's organization is only partially centralized because only one battalion was kept in

the GS role. Centralization was not appropriate in this battle. The situation was so fluid and rapidly changing that the policy of decentralization was certainly the appropriate one to implement. This policy did not affect the ability to mass fires. Even though not under central control the battalions were still able to mass their fire when appropriate and in "at least two actions were credited with breaking up large scale attacks". (4)

As noted earlier, the standardization of procedures started with the training of each unit. It is also important to note that III Corps had a chance to practice their procedures in a low risk environment before this battle. As noted in Chapter Three, the Corps Artillery served for 50 days under the guidance of XX Corps Artillery. During this time III Corps practiced the employment of FA assets. They had an opportunity to see the rapid changes that took place in the number and types of units assigned. The experience under XX Corps, and their comparatively low risk combat exposure at METZ, served well to demonstrate the effectiveness of the current FA doctrine.

What does this study have to say to the field

artillerymen of today ? The question is best answered by analyzing some of the important lessons demonstrated by this battle:

LESSON ONE: The most important finding of this study is that the adherence to a set of standardized procedures and doctrine was effective in this battle. This standardization was not constraining. On the contrary, it created conditions that enhanced the support provided by the field artillery. Battalions and groups were able to provide timely and effective support because they operated under a set of rules and procedures that were widely adhered to. The standardization created flexibility not rigidity.

LESSON TWO: Field Artillery battalions should be employed as Battalion size units. Current artillerymen should resist the temptation to break up the basic battalion formation. The flexibility of the doctrine is sufficient to respond to virtually any tactical situation. This is not an argument against the dispersion allowed by modern communications. Dispersion is a requirement of the modern battlefield. However, the tactical control of the units should not be dispersed, but concentrated at the battalion level. If the FA units of today

concentrate on the consistent application of their procedures, they will be able to respond to virtually any battlefield requirement.

LESSON THREE: The FA units of today would be well advised to practice a number of standard tactical missions. The tendency to characterize a unit by a single tactical mission is dangerous. All units must be able to perform any of the missions. The artillerymen of this battle demonstrated the ability to rapidly shift from one division to another as well as changing their mission. This ability should not be lost. The flexibility of the field artillery can be traced to the artillerymen of World War II. This flexibility must be maintained by current "Redlegs".

LESSON FOUR: Local procedures and arrangements that violate doctrine must be avoided. The standard operating procedures used by III Corps artillery units were widely understood and practiced. The common procedures enhanced the ease with which shifts from one division to another were made.

LESSON FIVE: The Field Artillery must train with the maneuver units that they support. The FA

must practice the rapid shifts in mission and supported unit that was apparent in this battle. Training with the supported maneuver units will create a better understanding of the capabilities of the FA and an appreciation for the myriad of tasks the FA can perform.

The research accomplished for this study suggests two areas for further exploration. The development of observation procedures during World War II could be explored. Several different methods were used in World War II. Fixed as well as mobile systems were tried. A comparison of these two methods could prove interesting, especially as it concerns the aerial capabilities of todays army. There is a possibility of a revealing study of ammunition supply procedures. As was noted in Chapter Four, the expenditures during the battle for the Ardennes were tremendous. The movement and management of this ammunition could have applicability to current procedures.

Another area that current "redlegs" need to consider is the span of control. Todays Corps Artillery Section is significantly smaller than the Corps Artillery Battery of the Corps Headquarters of

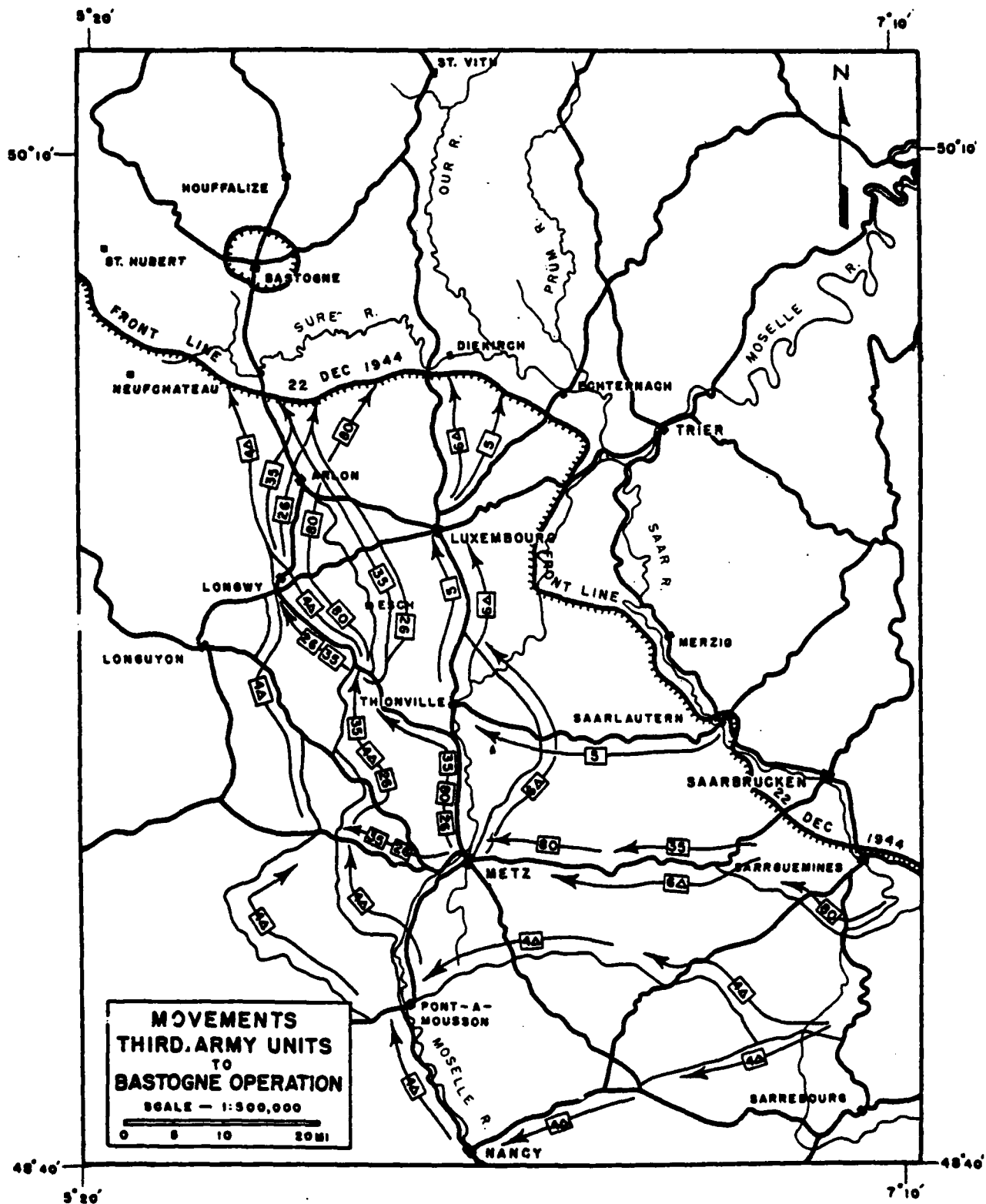
World War II. The problems of controlling 25 battalions are significant. There could be a valuable study conducted concerning the ability of todays Corps Artillery Section to augment the Divisions firepower, as in World War II.

BG Lentz, XII Corps Artillery Commander, said "it is particularly important that operations and methods of corps artilleries are recorded and studied." (5) This study has made an attempt to record some of the operations and methods of III Corps. Field Artillery units today should heed the experiences of their brothers from World War II. The development of a set of standardized procedures, coupled with a commitment to employment doctrine, will create the flexibility so necessary on a modern battlefield.

CHAPTER FIVE ENDNOTES

- (1) III CORPS, After Action Report, Dec 44 ,
31 December 1944, p. 21.
- (2) The General Board, Report on the Study of Field
Artillery Group , undated, p. 3.
- (3) 4th Armored Division, After Action Report
Dec 44 , undated, no page numbers
- (4) III Corps, After Action Report, Dec 44
31 December 1944, p. 21.
- (5) John M. Lentz, BG XII Corps Artillery in
Combat , (Regensburg, Germany, U S Army,
1945), p. i.

PLATE ONE



APPENDIX ONE

APPENDIX ONE

It is important to understand that the standardization of training for field artillery units played a big part in enabling them to shift from Group to Group with relative ease. Each battalion underwent a series of tests conducted by Army Ground Forces prior to deployment to the European theater. These tests not only measured the unit capability to conduct field artillery fire, but also measured them against a consistent standard. Of the field artillery units involved in the attack conducted by III Corps, the 404th FA group is representative of the testing process and the testing results. The following is an extract from the test results for this Group. The Group underwent the test during 17-20 April 1944, approximately 4 months before their arrival on the continent. It is interesting to note that the Group took this test with the 772nd and 773rd FA Battalions and never again had these battalions attached. This appendix has been included to give the reader a flavor for the types of events that were tested and the comments made by the inspectors.

The following has been extracted from:

US Army. XXIII Corps Artillery. "Reports AGF FA Bn
Tests Conducted by X Corps, XXIII Corps
Artillery,

1 January 1943 - 31 October 1944." Volume 1,
TAB 404th, APO 103, Fort McPherson, Georgia,
16 November 1944

Headquarters XXIII Corps Artillery
Camp Bowie, Texas
26 April 1944

Report of AGF FA Bn Tests

Ref: Letter, AGF, file 353/52 (Tng Div) (19 Oct 42) -
GNGCT, dated 29 August 1943, Subject: "Revision of
Army Ground Force Field Artillery and Tank Destroyer
Tests".

Unit: 404th FA Group
Place: Camp Bowie, Texas
Date: 17 - 20 April 1944

<u>Test I - Adjustments of Fire:</u>	Weight
Grade	
Speed	8
7.800	
Occupation and organization of psn	12
10.540	
Precision adjustments	15
14.102	
Bracket adjustments	30
37.147	
Observed fire chart and bn concentrations	<u>15</u>
<u>4.455</u>	
Grade for Test I	
74.044	

<u>Test II - Transfers of Fire:</u>	
Selection and location of base point	10
10.00	
Vertical control	5
4.000	
Determination of K	10
9.925	
Laying battalion of direction	10
10.00	
Accuracy of concentrations	30
16.545	

Speed	15
15.00	
Air adjustment	10
15.00	
CI & preparation for night adjustment	<u>10</u>
<u>9.700</u>	

Grade for Test II

84.720

Test III - Unobserved Fires:

Survey	15
12.750	
Night occupation of position	15
12.375	
Preparation of fire	20
16.500	
Effect of fire	30
20.630	
Night high burst adjustment	10
9.750	
Operation of FDC	<u>10</u>
<u>9.750</u>	

Grade for Test III

81.755

Grade for three Tests

Grade for Test I x 5.0

370.220

Grade for Test II x 2.5

211.800

Grade for Test III x 2.5

204.387

Total

786.407

Div by 10

78.641

Form 46

Artillery section

(NOTE: The average grade for a Group during this
time was 78.7)

HEADQUARTERS XXIII CORPS ARTILLERY

Camp Bowie, Texas,

24 April 1944

Comments for 772d F. A. Test I

772d F. A. Battalion

Speed

Phase 3 was 21 minutes 40 seconds overtime because of slowness of FDC and slowness of adjustment for the 2d concentration.

Speed for occupation of position excellent; first round fired 24 minutes after problem time started.

Occupation and Organization of Position

"A" Battery

Occupation of position excellent; all personnel fulfilled their duties in a quiet and efficient manner.

"B" Battery

Occupation of position very good, however some confusion resulted during initial laying because executive could not make his commands heard by all

sections.

No. 2 piece fired 4 mils in error in deflection during registration.

Bore was not checked for foreign material after rounds fired.

"C" Battery

In occupation of position, prime movers cut across ground indiscriminately making fresh tracks into position.

Communications was unsatisfactory. Wire net was not fully established, necessitating use of radio throughout. Deflated BA 40 radio batteries made it necessary to establish a relay radio station between OP and battery which caused considerable delay in conduct of fire.

Service of piece very good.

Precision Registrations

Initial data and conduct of fire for all three registrations very good. Small T registrations of "C" battery very slow because of poor radio communication.

Bracket adjustments

Battery Forward Observer - Officer firing made

an excellent adjustment with time fire in 4 minutes 3 seconds. Height of burst 10 yards.

Battalion Forward Observer - Initial data was very good but officer firing wasted several rounds during adjustment by making poor sensings. Time for this problem was 9 minutes in excess of allowed time because of wasted rounds during adjustment and slowness of FDC.

Small T Bracket - Initial data in error 158 mils in direction and 200 yards in range. Officer firing made changes promptly but problem exceeded time allowed by 7 minutes and 50 seconds due to poor radio communication of "C" Battery. Commands had to be relayed through an intermediate set to the battery.

Large T Bracket - Initial data in error 120 mils in direction and 200 yards in range. Officer firing this problem attempted to adjust height of burst by changing time setting instead of changing site, causing 4 salvos to be wasted during adjustment. Lack of procedure and incorrect "S" factor caused time for this problem to exceed time allowed by 15 minutes and 20 seconds.

Observed Fire Chart and Battalion Concentrations

Observed Fire chart constructed from adjusted

data of center battery with one type propelling charge and the flank batteries with another type charge. In the battalion concentrations when the center battery adjusted the non-adjusting batteries fired about 200 yards over; when one of the flank batteries adjusted the other flank battery massed correctly, but the center battery was about 200 yards short.

Initial plot of observer's sensing for first concentration was 200 yards short; observer sensed "Base point 800 right, 900 over", HCO plotted "800 right, 1100 over". Shift for "A" battery for this plot was measured from Battery "B" base line, causing 19 mils error in initial data for "A" battery. Error caught and corrected before firing. Time completion of adjustment until last battery to fire this concentration was 10 minutes 50 seconds, due to excessive errors by FDC personnel and S-3 checking and correcting data.

Too many people in FDC; at one time there were 20, many who had no business there. Battalion communications officer used one computer's phone to send a message while a mission was being fired. General operations of FDC extremely slow.

HEADQUARTERS XXIII CORPS ARTILLERY

Camp Bowie, Texas,

25 April 1944

Comments for 773d F. A. Test I

773d F. A. Battalion

Speed

Phase 3 was 6 minutes 30 seconds overtime due to slowness in operation of FDC.

Speed for occupation of position excellent; first round fired 25 minutes after problem time started.

Occupation and Organization of Position

"A" Battery

Gun sections performed service of piece in a very thorough and efficient manner.

There was a lack of strict camouflage discipline; prime movers made fresh tracks through position and personnel were frequently and unnecessarily in open.

"B" Battery

Service of piece and occupation of

position was generally excellent; cannoneers operated smoothly and efficiently and continued to improve position through out the test. Maximum use made of assistant executive.

The command "Do not Load" was received from FDC on one mission; after 50 seconds elapsed "Quadrant 118" was received and all pieces loaded on this command.

On another problem, executive fired No 1 piece when the command received from FDC was "At my Command".

"C" Battery

No effort made to bore sight pieces.

After initial laying the executive put one aiming stake approximately 10 feet from his aiming circle and commanded each gun to use that stake for an aiming point. Aiming stakes were not put out until after base point registration.

No effort was made by chiefs of sections to camouflage until reminded to do so by assistant executive. During lulls in firing no attempt made to improve position; cannoneers were sitting in shade in rear of pieces when not firing. Personnel trenches and ammunition pits were not dug.

Precision Registrations

Initial data for axial registration very poor; in error 77 mils in direction and 1000 yards in range.

Initial data for the Small T and Battalion Forward Observer registering the Large T battery excellent.

Battalion Forward Observer requested "Fire for Effect" without having established a 100 yard range bracket in the base point registration.

Bracket Registration

Battery Forward Observer fired a very good problem, but time was 5 minutes over allowed time due to slowness in operation of FDC.

Battalion Forward Observer made a very good adjustment, loosing (sic) no time in making sensings but the problem exceeded time allowed by 6 minutes because of slowness in FDC. FDC required 5 minutes to plot observers initial sensing and fire the first salvo.

Initial data for Small T bracket adjustment in error 100 mils in direction and 500 yards in range. Conduct of fire in this problem very slow; time 5 minutes 50 seconds over allowed time.

Initial data Large T Bracket adjustment in

error 80 mils in direction and 600 yards in range. Officer firing required 4 minutes 40 seconds to compute initial data and 3 minutes 20 seconds over allowed time to fire problem.

Observed Fire Chart and Battalion Concentrations

Error made by HCO in initial plot of first concentration; Battery Forward Observer sensed "Concentration 730 is 600 Left, 400 Over"; was plotted "200 Left, 400 Over".

Operation of FDC slow; time completion adjustment by adjusting battery on first concentration until last battery fired 7 minutes 10 seconds, second concentration 6 minutes 30 seconds.

"Corrections all Batteries" was used instead of determining data from replot of adjustment for non-adjusting batteries. This resulted in an error of 4 mils in deflection and 50 and 75 yards in range in the effect of the non-adjusting batteries on the first concentration and 100 and 150 yards in range on the second concentration.

HCO and VCO made numerous errors causing excessive checking by the S-3 and slowing down the operation of the FDC.

HEADQUARTERS XXIII CORPS ARTILLERY

Camp Bowie, Texas,

24 April 1944

Comments for 772d F. A. Test II

772d F. A. Battalion

Selection and Location of Base Point

No error in location; location suitable for transfer to all target.

Vertical Control

Altitudes of targets from 3 to 7 yards too high.

Determination of K and Kr Setting

No errors in registration nor determination of corrections.

Laying Battalion on Base Point

Correct method used and no errors made.

Effectiveness of Fire on Four Concentrations

Rounds were all graze bursts on Target 14. A careful check on data for this target reveals no

error that would cause all graze bursts.

Height of bursts for Target 19 was 39 yards.
VCO made a plus 2 mils error in determination of site to this target.

First firing of Target 7 gave 2 graze bursts and 1 air burst. Height of air burst was 24 yards. Refire of this target with an increase of 3 mils site (amounting to 15 yards increase in height) gave 1 graze and 2 air bursts with height of air bursts 40 yards.

Only 3 buns per battery were available for test.

Speed

Test completed in 7 minutes less than allowed time.

Air Adjustment

Air adjustment was very slow due to slowness of operation of FDC.

Preparation for Night Adjustment and C.I.

No errors made.

General Comments

Occupation and Organization of Position

"A" Battery

Unnecessary talking in all sections during fire missions; No 1 cannoneer 2d section talked continuously during missions.

Little effort made to dig in or to organize position.

Battery recorder laid the battery in an excellent manner; was checked by executive.

"B" Battery

Discipline of cannoneers was excellent throughout test. Chiefs of sections exercised command of sections, keeping men busy improving position and caring for materiel when not firing.

"C" Battery

Battery functioned rapidly, smoothly and quietly during occupation of position and firing. Personnel kept busy improving position when not firing. Service of piece very good.

HEADQUARTERS XXIII CORPS ARTILLERY

Camp Bowie, Texas,

24 April 1944

Comments for 773d F. A. Test II

773d F. A. Battalion

Selection and Location of Base Point

No error in location; location suitable for transfers to all targets.

Vertical Control

VCO did not ridge and streamline chart while at OP.

Determination of K and Kr Setting

No error in registration nor determination of corrections, however, registration was completed immediately after occupation of position and about an hour before battalion was ready to fire concentrations.

Laying Battalion on Base Point

No errors made; correct methods used.

Effectiveness of Fire on Four Concentrations

No 3 piece Battery "C" fired 134 mils in error in deflection on 2d concentration.

An error in plotting the base line extension for "A" Battery on the HCO chart caused shift to target 1 to be too small with no effort on target.

Altitude of Target 19 was 23 yards too high and 1 mil error in computation of site for this target caused height of bursts to be 74 yards.

All rounds fired on Target 14 were graze. A careful check of data for this target reveals no error that would cause graze bursts.

Speed

Battalion completed test with allowed time.

Air Adjustment

Air adjustment was slow because of slowness of FDC.

Preparation for Night Adjustment and C.I.

Errors of minus 5 yards per 1000 and 3 mils in deflection were made in determination of corrections from C.I. adjustment.

General Comments

Occupation and Organization of Position

"A" Battery

Battery did not carry out complete organization of position; digging in and camouflage not continued throughout occupation of position.

Service of piece excellent.

"B" Battery

Occupation accomplished with minimum of time and confusion.

Men were kept busy improving position and caring for materiel.

The recorder kept his records neat and accurate; he checked gunners deflections throughout test.

"C" Battery

Occupation of position rapid and orderly.

Men improved position and cared for materiel during occupation.

No 3 piece fired 134 mils in error in deflection on second concentration. Command was BDL 67, No 3 piece shifted BDR 67.

HEADQUARTERS XXIII CORPS ARTILLERY

Camp Bowie, Texas,

24 April 1944

Comments for 404th F. A. Group Test III

Group Headquarters

General Comments

Group headquarters operated efficiently, smoothly and without confusion throughout test. Maximum use made of enlisted men. Enlisted men performed their duties in an excellent manner. Targets were restituted by enlisted men with average error of 122 yards in X and 6 yards in Y. Officers made checks on restitution. Installations at command post were all complete.

772d F. A. Battalion

Survey

Instrument used in target area survey measured vertical angles from 1 to 2 mils too high. This caused errors of from 3 to 6 yards in altitudes of targets.

An error of minus 15.8 yards in computation of last leg in connection survey was made.

Occupation, Camouflage and Organization of Position

All batteries had too many flashlights although the lights were hooded. This excessive use of flashlights caused some confusion among gunners during laying of the pieces.

Security was generally insufficient. Two umpires toured all areas after dark without encountering guards or sentinels. Password and countersign were not used.

Headquarters Battery

One man in next to last vehicle smoking during blackout march.

"A" Battery

Executive smoking during inspection of sections after dark.

Aiming posts of 1st section too close; near post 25 yards and far one 50 yards from piece.

Not enough preparation done before occupation; No 1 piece could not be place in the position selected.

"B" Battery

Enlisted men sleeping in open after daylight.

"C" Battery

Organization of position and camouflage excellent although enlisted men were sleeping in open after daylight.

Preparation of Fire

Assistant S-3 restituted targets using tracing paper method. Restitution was not checked by use of another method but was checked by S-3 using same tracing paper and (sic) method.

Effect of Fire

Concentration No 1 had 1 graze and 2 air bursts; average height of air bursts 19 yards.

Concentration No 21 had 1 graze and 2 air bursts; average height of air bursts 37 yards.

A careful check of all data reveals no error that would cause the variations in heights of bursts in these concentrations.

Range and deflection correct for all four concentrations.

Only 3 guns per battery were available for test.

Night High Burst Adjustment

Separate wire lines to each observer enabled

prompt reporting of instruments readings.

S-3 exercised excellent and complete control in firing high burst adjustment.

Operation of Fire Direction Center

FDC excellently organized. Enlisted men computed VE and solved metro messages - checked by officers.

HCO and VCO made several mistakes in plotting and reading angles and ranges - all of which were caught and corrected by S-3 or assistant S-3.

One computer used command. "OK, lead 'em up". This caused some delay in starting the high burst adjustment.

773d F. A. Battalion

Survey

Adequate and practical survey plan; prompt initiation of survey, but completion slow.

From 1430 to 1630 survey parties doing computations were visible to enemy observation.

Occupation, Camouflage and Organization of Position

All batteries made excellent occupations of

positions with a minimum of noise and lights. All batteries well dug in; excellent use made of existing camouflage.

Road leading into southeast of Battery "A" position was unguarded at 2250. At 2255 personnel at machine gun post south of Battery "A" position did not know countersign.

Preparation of Fire

Data for concentration 316 had the following errors; 1 mil in metro deflection correction, 5 mils in measured base deflection shift, 5 mils in deflection caused by error in restitution of target. Total deflection error of 11 mils in same direction. This error was large enough to cause loss of all effect on this concentration.

The deflection correction change as computed from high burst adjustment was used instead of adjusted deflection correction in data for concentration 305. Measured shift BDL 26, adjusted deflection correction Left 14, data that should have been fired BDL 40; data fired BDL 31. No 1 piece Battery "B" that fired this concentration fired 20 mils in error in deflection to left. An error also was made in computing the quadrant elevation for this concentration causing effect approximately 175 yards

over. Elevation for measured map range 136, site plus 5, elevation correction from high burst adjustment plus 2, data that should have been fired quadrant 143; data fired, quadrant 149. Altitude of this target was 9 yards too low causing 1 graze and 3 air bursts 7 yards high.

Effect of Fire

Concentration 311 had 1 graze and 3 air bursts with average height of air bursts 23 yards. A careful check of all data for this concentration reveals no error that would cause this variation.

Night High Burst Registration

Thorough preparations made for high burst adjustment; orientation and calibration of instruments very good; communications and procedure very good; adequate and accurate sensing.

Operation of Fire Direction Center

Organization of FDC very good; only necessary talking permitted; only necessary personnel permitted in FDC.

APPENDIX TWO

APPENDIX TWO

The fact that Third Army was able to make a move from SAARBRUCKEN to ARLON in such a smooth fashion has been the subject of a great deal of study. This feat has served as an example of magnificent military planning. The purpose of this thesis is not to analyze this move. Rather, to study how field artillery units were employed before and after this move. This appendix has been included to give the reader an appreciation of the complexities of relieving combat units in contact and replacing them with others.

The following has been extracted from Army Ground Forces Report #C-509, dated 3 January 1945. This document is on file in the Combined Arms Research Library under the number N6739.

HEADQUARTERS
EUROPEAN THEATER OF OPERATIONS
UNITED STATES ARMY

WAR DEPARTMENT OBSERVERS BOARD

APD 887

3 January 1945

SUBJECT: AGF Report No. 509 - Movement of XII Corps
Artillery

SUBMITTED BY: Colonel JAMES W. CLYBURN, Field
Artillery Observer.

1. When the Germans made their recent counter-offensive the XII Corps Artillery was hastily moved north and placed in position to support a counterattack.

2. The following brief outline of this move was obtained from Major E. W. Bartley, S-4 of the XII Corps Artillery:

a. By 211800, the tactical picture was obscure; about all we knew was that we would move north towards Luxembourg, XV Corps would take over our zone, we would leave 3 heavy battalions and brigade headquarters, move our own headquarters, 3 groups, 2 observation battalions, 3 light battalions, 4 medical battalions, 2 heavy gun battalions; send a 155 gun (SP) battery and an 8" gun battery back to their battalions in another corps. We would give XX

Corps one light truck battalion and receive from them a 105 SP battalion.

b. The following plan was adopted, adjacent corps artillery commanders and units notified by 212300.

(1) An information center would be set up in the first town south of city of Luxembourg. Each battalion and group headquarters would send an advance party of 7 vehicles per gun or howitzer battalion, 8 per observation battalion, 5 per group headquarters, to report to the information center on 22 December for instruction. Battalions and groups were alerted for movement on order after 222400. Advance parties were to move under group control.

(2) XV Corps agreed to send in one group and 4 battalions on 22 December.

(3) One light battalion would send an advance party to XX Corps and XX Corps would have the SP battalion send an advance party to the information center.

(4) All maps, charts,

communication lines, etc., that would be of value would be turned over to XV Corps Artillery.

(5) Corps artillery commander with corps commander would leave early on 22 December to establish information center.

(6) Corps CP advance echelon would follow at 221200.

(7) No maps of new area were available except a few road maps to Luxembourg and a few 1/100,000s of the area.

(8) XII Corps Artillery was to leave a section of headquarters to assist XV Corps and to direct movement of our units out of the area. This section consisted of Executive, Assistant S-4, Assistant S-3, and a few enlisted men.

(9) A new heavy maintenance ordnance company from XV Corps reported to support the corps artillery on 22 December. Ordnance company was to form large maintenance contact parties and move with each group.

(10) Corps artillery fire direction centers were to coordinate movement in division areas and get units to IPs. Army selected the routes from corps area for us.

c. Battalions were ordered to displace over several different routes on the 23d with one hour time interval between units. Each observation battalion left one letter battery in operation for XV Corps until relieved. Each unit was to send an officer at least 2 hours ahead of the main body to report to the corps information center.

d. In the interim, a CP was selected, plans made for organization for combat, advance parties given as much information as possible and areas to select positions. Units were instructed to send guides back to the information center to meet their units. One officer of corps artillery headquarters was left on duty at the information center.

e. Battalions moved as planned on the 23d and by evening of the 23d, all battalions had closed in the area and the majority of them were firing the night of the 23d. The move was a little

over 100 miles and required on the average of 12 hours for completion, by a battalion.

f. The following artillery units were found in the area:

- 1 Group with a medical and a 155 gun (SP) battalion
- 2 Battalions of 28th Division, one light and one medical that were attached to corps artillery
- 4th Division - 3 light battalions and 1 medical (2 of the light battalions were SP)
- 10th Armored Division Artillery with 2 organic battalions and one battalion from 9th Armored Division, what was left of battalion headquarters and one letter battery of (285) observation battalion.
- 5th Division and division artillery moved in on the 23d.
- A new medical battalion arrived on 23d from the UK.

g. The letter batteries of the observation battalions that were left in the old area displaced on the 24th.

h. The move can be summed up by stating that on the 24th, light battalions fired in excess of 1000 rounds per battalion, medium and heavies in excess of 600 rounds per battalion and on the 25th,

they all ate turkey.

3. The success of this movement is attributed in great part to the displacement plan contained in the XII Corps Artillery Standing Operating Procedure.

/s/ James W. Clyburn

JAMES W. CLYBURN

Colonel, FA

WD Observers Board.

APPENDIX THREE

APPENDIX THREE

This Field Order has been included to give the reader an appreciation for the simplicity and conciseness of this document. It directed what was one of the major battles of World War II. The operation overlay has been included in this study as Plate #X. The intelligence annex is deleted from this copy.

Note that the field artillery attached to the 80th and the 26th Divisions in paragraphs 3a and b does not match the organization for combat listed in 3d. Paragraph 3d is the correct organization for combat as determined through after action reports of the Divisions concerned and G-3 periodic reports published by III Corps.

This is an exact copy of the Field Order as contained in III Corps After Action Report - Dec 44, Dec 44. This document is in the Combined Arms Research Library under the file number N-12029.

FO 1

MAPS: CSGS - 4416 - 4436, Scale 1/100,000. Sheets:

MARCHE 13, ARLON 17, TRIER T-1, NIEUNKIRCHEN U1.

1. a. Annex 2 (Intelligence).

b. VIII Corps continues to delay enemy advance to W and S. XIX TAC supports attack of III Corps. Details on XII Corps later.

2. III Corps advances N in Zone in direction of ST. VITH (VP 855882) at H Hour, D Day; destroys any enemy encountered (overlay).

3. a. 80 Inf Div:

Attached: 633 AAA AW Bn (Mbl)

702 Tk Bn

610 TD Bn (SP)

404 FA Gp (512, 949 FA Bns)

3 Plat, 16 Field Hosp

(1) Advance in zone through elements of VIII and XII Corps (4 Inf Div, 10 Armd Div, 9 Armd Div, and 28 Inf Div). Attack and destroy enemy.

(2) Protect Corps right (east) flank and maintain contact with XII Corps.

(3) Maintain contact with 26 Inf Div on

left (west).

b. 26 Inf Div:

Attached: 390 AAA AW Bn (SP)

818 TD Bn (SP)

735 Tk Bn

193 FA Gp (179, 752 FA Bns;

696 Armd FA Bn)

2 Plat, 59 Field Hosp

(1) Advance in zone. Attack and destroy enemy.

(2) Maintain contact with 80 Inf Div on right (east) and 4 Armd Div on left (west).

c. 4 Armd Div:

Attached: 489 AAA AW Bn (SP)

704 TD Bn (SP)

253 Armd FA Bn

274 Armd FA Bn

444 QM Trk Co

3804 QM Trk Co

1 Plat, 16 Field Hosp

995 Engr Treadway Br Co

(1) Advance on left of 26 Inf Div; attack and destroy any enemy encountered.

(2) Maintain contact with 26 Inf Div on right (east).

(3) Protect Corps left (west).

(4) Contact, when gained, with VIII Corps elements will be maintained.

d. Field Artillery:

(1) 203 FA Gp:

Attached: 176 FA Bn (4.5" Gun)

177 FA Bn (155mm How)

731 FA Bn (155mm Gun)

General support, reinforce fires 4 Armd Div with one battalion 155mm Guns.

(2) 193 FA Gp:

Attached: 696 Armd FA Bn (105mm How)

179 FA Bn (155mm How)

949 FA Bn (155mm How)

Attached to 26 Inf Div.

(3) 404th FA Gp:

Attached: 512 FA Bn (105mm How)

752 FA Bn (155mm How)

Attached to 80 Inf Div.

(4) 253 Armd FA Bn attached to 4 Armd Div.

(5) 274 Armd FA Bn attached to 4 Armd Div

(6) 288 FA Obsn Bn support of Corps.

e. 32 AAA Gp:

Attached: 468 AAA AW Bn (SP)

Protect:

(1) Corps Artillery

(2) Bridges and Corps
installations.

f. Tank Destroyer:

Hq 8 TD Gp attached III Corps Arty.

g. Air Support:

Fighter bombers of the XIX TAC will support attack of III Corps with close support missions and armed reconnaissance over tactical area. Squadrons will contact Corps and Division Air Support Party for targets. Time over target area as soon as weather permits.

h. Engineers:

(1) 1137 Engr C Gp:

Attached: 183 Engr C Bn

188 Engr C Bn

145 Engr C Bn

249 Engr C Bn

770 Engr Dp Trk Co (-)

632 Engr LE Co (-)

72 Engr L Pon Co

513 Engr L Pon Co

998 Engr Trdwy Br Co

(a) Support attack.

(b) Be prepared to attach one
battalion to a division on Corps order.

(c) Direct Support:

(1) 145 Engr C Bn (one plat 513
L Pon Co atchd) of 80 Div

(2) 249 Engr C Bn (513 L Pon Co
less one plat atchd) of 26 Div.

(3) 188 Engr C Bn of 4 Armd
Div.

(2) Attachments:

995 Engr Trdwy Br Co attached 4 Armd
Div

(3) General Support:

178 Engr C Bn.

Attached: One Plat, 770 Engr Dp Trk Co.

One Plat, 632 Engr LE Co.

i. Corps Reserve:

(1) 26 Inf Div: One Inf Bn to be committed on Corps order only.

(2) 80 Inf Div: One Inf Bn to be committed on Corps order only.

x. (1) Bridges will be blown on Div order only. Authority to blow bridges may be delegated to subordinate units.

(2) Strict measures to insure air security will be enforced.

(3) Each unit commander will take special measures for all-around security to insure against being surprised.

(4) No gasoline, weapons, vehicles, or ammunition will be permitted to fall into enemy hands without being destroyed.

(5) Reporting lines (overlay) will be used for coordination and as references in reports to this headquarters.

(6) Air identification panels will be displayed on all vehicles.

4. Adm O No. 2, 20 Dec 44.

5. a. See letter of Signal Instructions, Hq III Corps, 20 Dec 44.

b. (1) CPs: No change. Locations of new CPs to be reported when occupied.

(2) AXES (sic) OF SIG COM :

III Corps : ARLON - ESCHDORF - WILTZ
- HAMIVILLE.

26 Div : EISCHEN - GROSBAUS -
ESCHDORF - WILTZ - HAMIVILLE.

80 Div : DOMMELANGE - KEISFELT -
BISSEN - BOURSCHIED - WILWERWITZ - CLERF -
WEISWAMPACH.

4 Armd Div : To be reported.

c. Radio Silence until contact gained.

MILLIKIN

Maj Gen

OFFICIAL:

/s/ MEWSHAW

MEWSHAW

G-3

APPENDIX FOUR

APPENDIX FOUR

"SERENADE" was a procedure directed by Third Army. III Corps probably adapted these procedures to their designs. The records do not discuss their standard operating procedures, but the concept would have been the same as presented in this Appendix. XII Corps Artillery (who "broke-in" III Corps Artillery) adopted this procedure essentially verbatim. This procedure is one of the reasons why the field artillery was able to mass on a single target so quickly. More importantly, this illustrates how standardized practices facilitated response to requests like that of LTC Abrams described in Chapter One.

This Appendix has been included because I could not find this procedure described in any of the literature reviewed in the Combined Arms Research Library at Fort Leavenworth.

The source for this information is The General Board REPORT ON STUDY OF FIELD ARTILLERY GUNNERY , Study Number 64, File 353.4/1. See bibliography of this study.

THIRD UNITED STATES ARMY

22 April 1944

OPERATIONS MEMORANDUM)

:

NUMBER 1)

SERENADE

1. The purpose of the procedure outlined herein, which will be designated as SERENADE, is to expedite the massing of all available fires within a corps sector in extreme emergency when lack of time precludes prearrangement of fire. The following SERENADE procedure will be followed by all units of this command.

a. Normally a request for SERENADE will originate with a forward observer who transmits to the battalion fire direction center the following:

EXAMPLE

- | | | |
|-----|----------------------------|----------|
| (1) | The code word SERENADE, | SERENADE |
| | which indicates that | |
| | three (3) volleys are to | |
| | be fired. | |
| (2) | Coordinates of the center | J301794 |
| | of the area to be covered. | |
| (3) | Nature of target. | 40 tanks |

b. The battalion fire direction center will transmit the request by telephone to the division artillery fire direction center. If the division artillery commander (or corps artillery group commander) or his authorized representative decides that the target warrants (sic) calling for fires in addition to those of his divisional (or group) artillery, he transmits over the corps artillery radio net to the corps artillery fire direction center his request for SERENADE. He includes the desired time at which the concentration is to fall. Normally Corps and Division Artillery Commanders should realize that an allowance of ten to twelve minutes must be made to insure that all battalions will be ready, and more time will be required if checks are necessary. Time must be synchronized periodically and each battalion firing will make its own allowances for time of flight so that all projectiles arrive simultaneously in the target area. If surprise fire is not desired because of the exigencies of the situation, the words "When ready" will be used and firing commenced as soon as possible. Example of division (or corps group) artillery request for SERENADE:

SERENADE

J301794

40 tanks

1435 (or "when ready")

c. If the target is deemed sufficiently profitable, the corps artillery fire direction center assigns the mission to all headquarters whose fire capabilities permit, and who are not engaged on a more important mission. (Note: All corps and division artillery units will have been alerted upon hearing the transmission for SERENADE over the corps artillery radio net.)

d. Firing procedure:

- (1) Each battalion, firing with its normal sheaf, and centered on the coordinates given, fires three (3) volleys at center range.
- (2) Targets of more than 400 yards in width or depth are covered by including an additional set of coordinates in the request for SERENADE. When more than one set of coordinates are given the method of attack will be announced.

e. If the forward observer decides that it is necessary to continue the firing on the target, he reports "REPEAT SERENADE". The battalion fire direction center will relay the request by telephone to the division artillery (or corps artillery group) fire direction center. If the division artillery commander (or corps artillery group commander) or his authorized representative decides the request is warranted, he will transmit over the corps artillery radio net "REPEAT SERENADE". Each battalion previously assigned the mission will repeat the firing without delay or further confirmation unless directed otherwise by its higher artillery headquarters.

f. Extreme care must be exercised to insure the accuracy of location on any request for SERENADE. This is the responsibility of commanders of all echelons handling such requests. They will be responsible that the coordinates given are accurate and that friendly troops are not endangered by the shoot. In addition, they are responsible that the requests are justifiable, and that the target warrants (sic) such an expenditure of ammunition. If there is any question as to the location of the target and adjustment of fire is necessary the mission then becomes one not of SERENADE but of

adjustment and a request for additional fires and reinforcement.

By command of Lieutenant General PATTON

/S/ R. W. Hartman

R. W. HARTMAN

Lt Col, A. G. D.

Asst, Adj Gen.

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